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A CONCEPTUAL PLAN FOR THE DEVELOPMENT OF A STATEWIDE EMERGENCY MEDICAL SERVICES SYSTEM IN MONTANA

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Prepared By:

Emergency Medical Services Bureau
Hospital And Medical Facilities Division
Montana State Department Of Health
And Environmental Sciences

Consultants: Booz, Allen & Hamilton, Inc.

April, 1975

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INTRODUCTION

INTRODUCTION

The broad objective of Montana's emergency medical services (EMS) system is to reduce death and disability resulting from medical emergencies and to ensure that citizens and visitors in Montana have rapid and easy access to effective, efficient and acceptable emergency medical services when they need those services. The EMS program described in this plan is designed to meet the EMS system's broad objective over a four-year implementation period.

Montana's EMS program addresses the following 15 mandatory components of an EMS system as identified by the federal regulations for the EMS Systems Act of 1973 (P. L. 93-154):

- Manpower
- Training
- Communication
- Transportation
- Facilities
- Access To Critical Care Units
- Integration of Public Safety Agencies
- Consumer Participation
- Accessibility to Care
- Transfer of Patients for Follow-Up Care and Rehabilitation
- Standardized Medical Record-Keeping
- Consumer Information and Education
- Evaluation
- Disaster Planning
- Mutual Aid

In addition, the EMS Bureau of the Montana Department of Health and Environmental Sciences identified the following four other EMS system components:

- On-going Planning
- Organization and Management
- Relationship to Other Health Care Delivery Systems
- Development of Standards and Legislation

This plan describes, for each of the EMS system components, the existing resources and capability, deficiencies and needs, objectives and implementation approach. It should also be noted that Montana's EMS program makes special provisions for several clinical critical patient groups as identified in HEW's draft program guidelines.

The plan is organized into the following seven chapters:

- Chapter I describes the state's existing and proposed organization for EMS planning and implementation, including an identification of the EMS planning regions, advisory councils and existing legislation.

- Chapter II presents planning information, including a discussion of existing EMS resources and capability and a description of the program area.

- Chapter III describes the existing and proposed EMS standards and regulations in Montana.

- Chapter IV identifies the state's EMS deficiences and needs and then presents the broad, general and specific objectives of the program.

- Chapter V describes the projected capability of Montana's EMS system once it has been fully implemented and then discusses the approach that will be used to implement each component of the system.
- Chapter VI presents the program implementation schedule which is based on a four-year implementation.
- Chapter VII identifies the program costs for the first year of implementation.

Due to the large volume of material presented in this plan, detailed supporting data for each chapter are contained in Appendices A through F. In addition, a detailed plan for the state's EMS communication system is contained in Appendix G.

I. STATE OF MONTANA ORGANIZATION FOR EMS PLANNING AND IMPLEMENTATION

I. STATE OF MONTANA ORGANIZATION FOR EMS PLANNING AND IMPLEMENTATION

This chapter describes the existing and proposed organizational structure in Montana for the continued planning and implementation of a regionalized statewide emergency medical services (EMS) system. It is anticipated that the proposed EMS organizational structure and the existing and proposed EMS legislation discussed below, will enable Montana to implement an EMS system that meets the requirements of the Emergency Medical Services Systems Act of 1973.

1. AUTHORITY FOR EMS IN MONTANA

The overall responsibility and authority for emergency medical services planning and implementation in Montana is vested in the Department of Health and Environmental Sciences as set forth in Title 69-Chapter 70, Revised Codes of Montana (R.C.M.) 1947. This legislation provides for the establishment and administration of an emergency medical services program by the Department of Health and Environmental Sciences. As stated in the law:

> "The department is authorized to confer and cooperate with any and all other persons, organizations and governmental agencies that have an interest in emergency medical services problems and needs, and the department is authorized to accept, receive, expend and administer any and all funds which are now available or which may be donated, granted or appropriated to the Department of Health and Environmental Sciences."

A copy of Title 69-Chapter 70, R.C.M. 1947, is contained in Appendix A-1.

2. EXISTING AND PROPOSED STRUCTURE AND FUNCTIONAL RESPONSIBILITIES OF THE EMS BUREAU STAFF

The EMS Bureau is located within the Hospital and Medical Facilities Division of the Department of Health and Environmental Sciences, as shown in Exhibit I, following this page. The EMS Bureau has been given the authority for carrying out the provision of Title 69-Chapter 70, R.C.M., and presently has seven staff members, including the Bureau Chief and six Public Health Coordinators, as shown in Exhibit II, following Exhibit I. The responsibilities of the staff members are as follows:

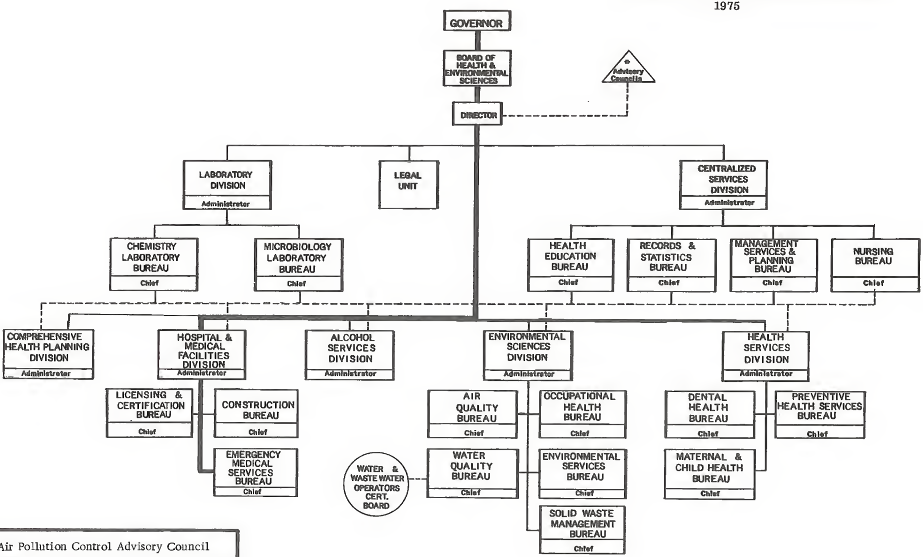
- Bureau Chief - responsible for overall planning and administration of the program.
- Communications Coordinator - responsible for developing a statewide EMS radio network and for integrating the EMS communications requirements with those communications requirements of other state agencies, including those listed on page 10 of the communications appendix, Appendix G.
- Coordinator of Ambulance Licensing and Emergency Medical Technician (EMT) Training-responsible for licensing and surveillance of ambulance services under the Montana Ambulance Licensing Law, discussed in Section 5 of this chapter, and for the coordination of Basic EMT - Ambulance (EMT-A) training programs throughout the state.
- Coordinator of First Aid Training and Advanced EMT Training Programs - responsible for improving broad-based first aid training for the general public and for assisting with the development of an advanced EMT training program.

EXHIBIT I

Montana EMS Bureau

ORGANIZATION CHART FOR THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

1975


GOVERNOR
BOARD OF HEALTH & ENVIRONMENTAL SCIENCES
* Advisory Councils
DIRECTOR
LABORATORY DIVISION
Administrator
LEGAL UNIT
CENTRALIZED SERVICES DIVISION
Administrator
CHEMISTRY LABORATORY BUREAU
Chief
MICROBIOLOGY LABORATORY BUREAU
Chief
HEALTH EDUCATION BUREAU
Chief
RECORDS & STATISTICS BUREAU
Chief
MANAGEMENT SERVICES & PLANNING BUREAU
Chief
NURSING BUREAU
Chief
COMPREHENSIVE HEALTH PLANNING DIVISION
Administrator
HOSPITAL & MEDICAL FACILITIES DIVISION
Administrator
ALCOHOL SERVICES DIVISION
Administrator
ENVIRONMENTAL SCIENCES DIVISION
Administrator
HEALTH SERVICES DIVISION
Administrator
LICENSING & CERTIFICATION BUREAU
Chief
CONSTRUCTION BUREAU
Chief
EMERGENCY MEDICAL SERVICES BUREAU
Chief
WATER & WASTE WATER OPERATORS CERT. BOARD
AIR QUALITY BUREAU
Chief
OCCUPATIONAL HEALTH BUREAU
Chief
WATER QUALITY BUREAU
Chief
ENVIRONMENTAL SERVICES BUREAU
Chief
SOLID WASTE MANAGEMENT BUREAU
Chief
DENTAL HEALTH BUREAU
Chief
PREVENTIVE HEALTH SERVICES BUREAU
Chief
MATERNAL & CHILD HEALTH BUREAU
Chief

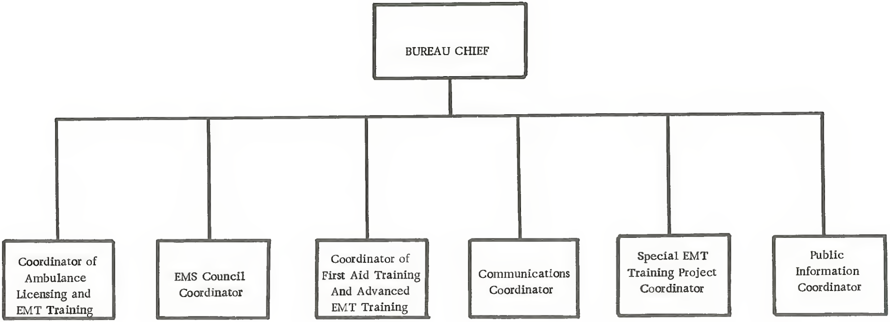
* Air Pollution Control Advisory Council
Water Pollution Control Advisory Council
Montana Alcohol & Drug Dependence Advisory Council
Montana Comprehensive Health Planning Advisory Council
EMS-Advisory Council

Source: Department of Health and Environmental Sciences.

EXHIBIT II

Montana EMS Bureau

EXISTING ORGANIZATION CHART FOR THE EMS BUREAU 1975


BUREAU CHIEF
Coordinator of Ambulance Licensing and EMT Training
EMS Council Coordinator
Coordinator of First Aid Training And Advanced EMT Training
Communications Coordinator
Special EMT Training Project Coordinator
Public Information Coordinator

Source: Montana EMS Bureau

- Special EMT Training Project Coordinator - responsible for coordinating the Basic EMT-A course with nine institutions of learning throughout the state, including vocational technology schools, junior colleges and colleges. This project is funded by a training grant from HEW under Section 776 of Part E of Title VII of the Public Health Service Act.
- EMS Council Coordinator - responsible for developing local EMS councils and organizing them into regional EMS councils.
- Public Information Coordinator - responsible for developing a statewide public information program on emergency medical services.

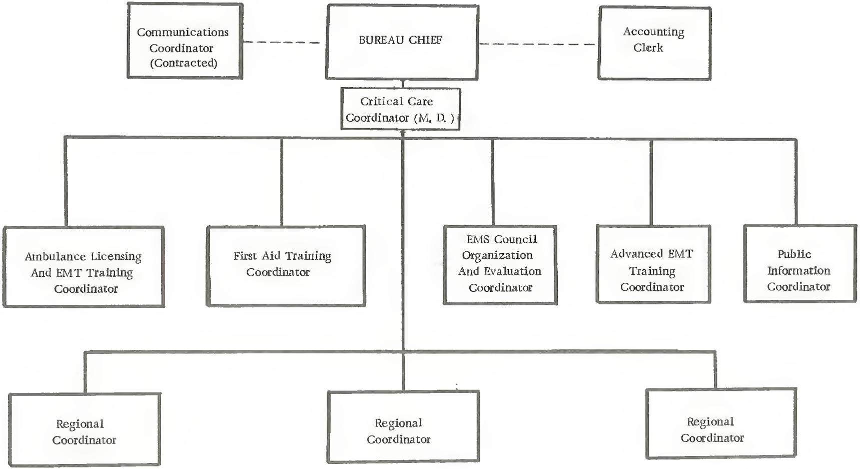
Exhibit III, following this page, presents the proposed organizational structure for the EMS Bureau. The responsibilities of the Bureau Chief and the Ambulance Licensing and EMT Training Coordinator are the same as was discussed above. However, the responsibilities of the other existing and proposed EMS Bureau staff members and contracted state personnel shown in the exhibit will be as follows:

- Critical Care Coordinator - a physician who will be responsible for ensuring that the EMS system is responsive to the medical care needs of the various critical clinical patient groups, including:
    - Accident victims
    - Burn victims
    - Acute coronary victims
    - High risk infants
    - Victims of poisoning, drug overdose and acute alcohol intoxification
    - Persons with psychiatric emergencies.

EXHIBIT III

Montana EMS Bureau

PROPOSED ORGANIZATIONAL STRUCTURE FOR THE EMS BUREAU


Communications Coordinator (Contracted)
BUREAU CHIEF
Accounting Clerk
Critical Care Coordinator (M. D.)
Ambulance Licensing And EMT Training Coordinator
First Aid Training Coordinator
EMS Council Organization And Evaluation Coordinator
Advanced EMT Training Coordinator
Public Information Coordinator
Regional Coordinator
Regional Coordinator
Regional Coordinator

Source: Montana EMS Bureau

The Critical Care Coordinator will also advise on policy decisions for the EMS Bureau and establish improved liaison with the medical profession.

- Communications Coordinator - a staff member of the Communications Division of the Department of Administration. Services to be provided under a contractual agreement will include:
  - Organizing and implementing a statewide EMS radio network
  - Providing training in the use of radio equipment to EMS personnel
  - Providing technical assistance with the installation and maintenance of EMS radio equipment.
- Accounting Clerk - to be physically located in the Management Services Bureau of the Department of Health and Environmental Sciences, and he will provide fiscal management of federal and state funds for EMS.
- First Aid Training Coordinator - responsible for coordinating Basic, Multi-Media, Standard, and Advanced First Aid as well as cardiopulmonary resusitation (CPR) training programs with appropriate organizations and agencies to assure adequate training of the general public and appropriate first responders.
- EMS Council Organization and Evaluation Coordinator - responsible for developing local and regional EMS Councils, and for developing and implementing an evaluation program.
- Advanced EMT Training Coordinator - responsible for assisting the Board of Medical Examiners with adopting adequate rules and regulations for advanced EMT training programs and for developing a sound plan for the accomplishment of this training in Montana.
- Regional EMS Coordinators for Regions 1, 2 and 3 - responsible for assisting local and regional councils and local governments with the development of all the components of an EMS system within the region. These coordinators will also assist with on-going planning for the regions and for the EMS Bureau.

The organization shown in Exhibit III should enable the EMS Bureau to implement the EMS program for Montana as discussed in this plan. Cost estimates and time schedules for the implementation of the proposed organizational structure for the EMS Bureau are presented later in this plan.

3. EMS PLANNING REGION IDENTIFICATION FOR MONTANA

For the purpose of planning and implementing an EMS system in Montana, local and regional planning areas have been established. The local planning area may be a city, a single county or several counties, as determined by a local EMS council. The local EMS councils will be discussed in more detail in the next section of this plan.

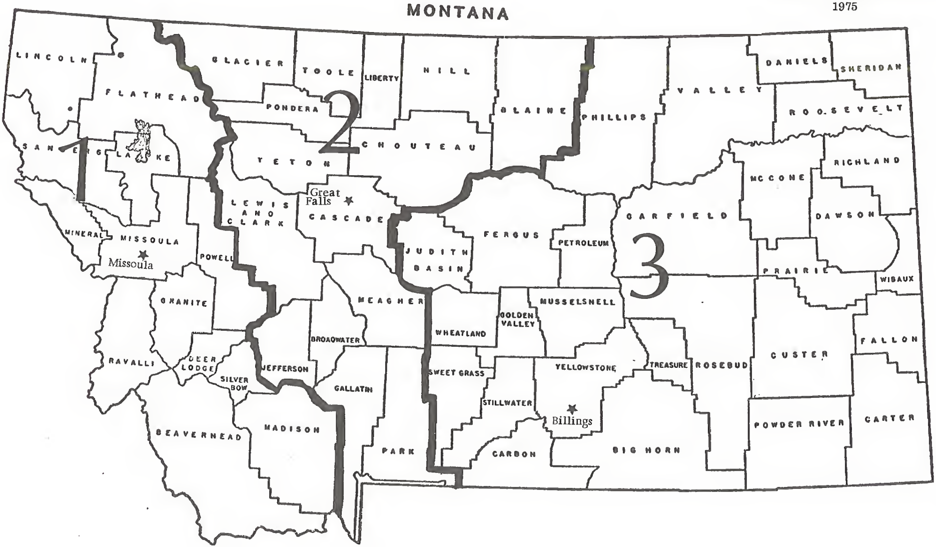
The state is divided into three EMS planning regions. The planning regions, as shown in Exhibit IV, following this page, have been organized around the three trauma centers located at Billings, Great Falls and Missoula. As noted in Cahpter II, these three facilities offer the broadest scope of emergency medical services, and are currently the only hospitals in the state providing 24-hour per day physician-staffed emergency departments. The composition of the planning regions is as follows:

- Region 1 includes 13 counties in the western part of Montana.

EXHIBIT IV

Montana EMS Bureau

EMS PLANNING REGIONS
1975



Source: Montana EMS Bureau

- Region 2 includes 15 counties in the central portion of Montana.
- Region 3 includes 28 counties in the eastern portion of Montana.

Although the geographic area of these regions is not equal, each region represents approximately one-third of the state's population, as noted in more detail in Chapter II.

The major, although not the only, consideration in establishing the regional boundaries was the natural service areas of the three trauma centers in the state. Exhibit V, following this page, illustrates the emergency referral pattern of these three major hospitals. The exhibit shows the counties where fatal injuries occurred in the state and where the injured patients died for the three-year period from 1970 through 1972. As indicated by Exhibit V, the three areas that received the largest percentage of the 154 fatally injured patients that were transported between counties or into the state during the period studied were:

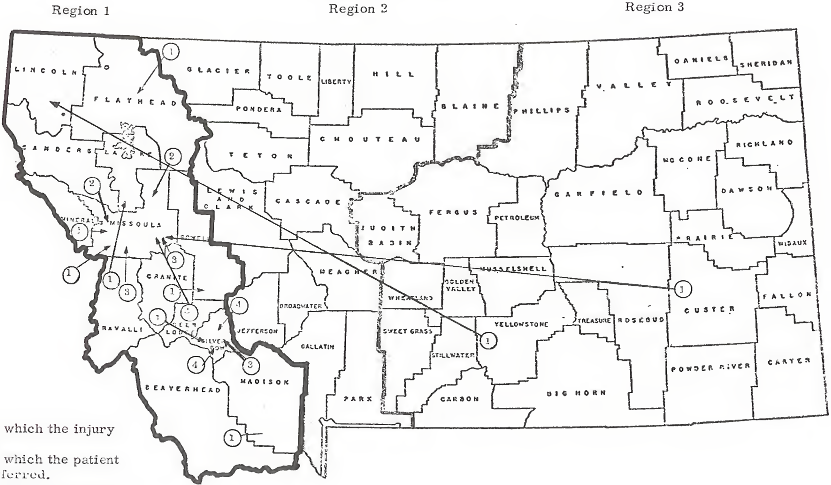
- Yellowstone County (Billings), which received 52 fatally injured patients or almost 34% of the transferred fatalities.
- Cascade County (Great Falls), which received 27 fatally injured patients or more than 17% of the transferred fatalities.
- Missoula County (Missoula), which received 21 fatally injured patients or almost 14% of the transferred fatalities.

EXHIBIT V

Montana EMS Bureau

TRANSPORTATION PATTERNS OF FATALLY INJURED PATIENTS 1970-1972

TRANSFERS TO REGION 1



○ = County in which the injury occured.

→ = County to which the patient was transferred.

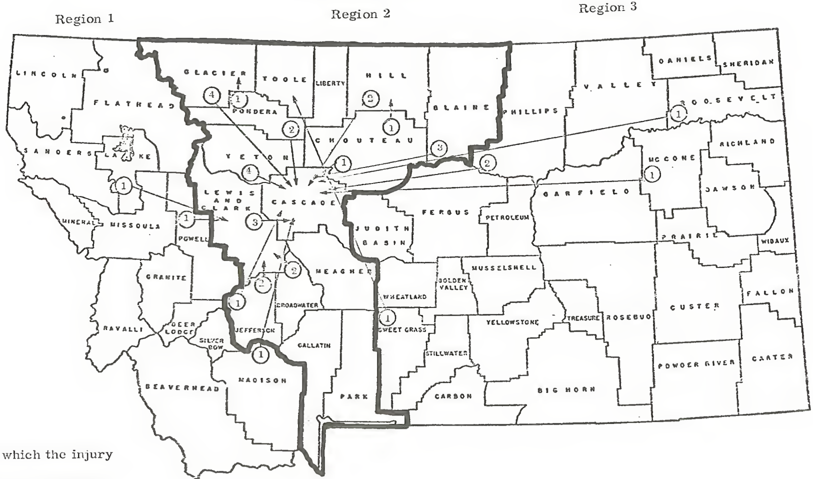
ⓧ = X is the number of fatal injuries occuring in the County which were transferred to another county.

Note: A total of 154 fatally injured patients were transported between counties or into the state during the three year period.

Source: Montana EMS Bureau

EXHIBIT V (2)

TRANSFERS TO REGION 2



○ = County in which the injury occured.

—► = County to which the patient was transferred.

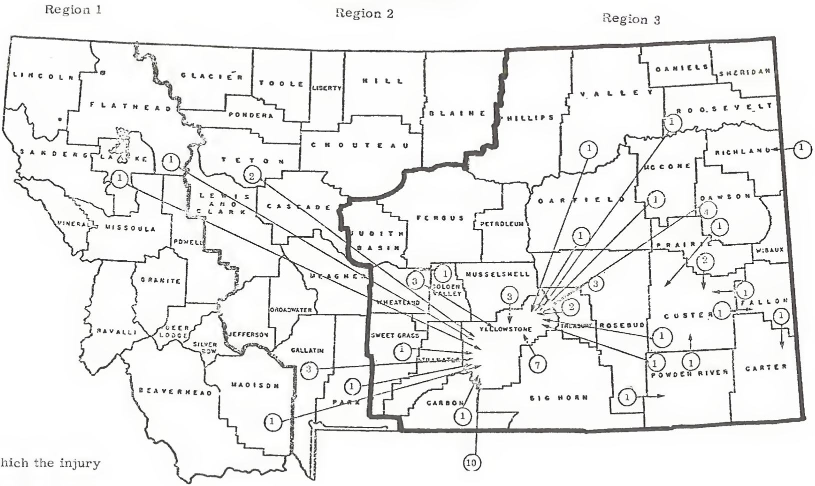
ⓧ = X is the number of fatal injuries occuring in the County which were transferred to another county.

Note: A total of 154 fatally injured patients were transported between counties or into the state during the three year period.

Source: Montana EMS Bureau

EXHIBIT V (3)

TRANSFERS TO REGION 3



○ = County in which the injury occured.

→ = County to which the patient was transferred.

Ⓧ = X is the number of fatal injuries occuring in the County which were transferred to another county.

Note: A total of 154 fatally injured patients were transported between counties or into the state during the three year period.

Source: Montana EMS Bureau

The actual service area for the three trauma centers varies somewhat from the regional boundaries shown in the exhibit. However, the development of the three EMS regions also took into consideration the Governor's twelve planning districts which do not necessarily reflect natural emergency medical service areas. These twelve districts were established by Executive Order 2-71, dated August 24, 1971, and amended by Executive Order 7-73, dated October 29, 1973. It should be noted that no planning district is divided by an EMS regional boundary. Therefore, for some counties located along an EMS regional boundary, emergency medical problems that cannot be treated within the county may be routinely transferred to the adjacent region.

The three identified planning regions may need to be adjusted in the future to coincide with the other proposed health planning regions.

It is anticipated that approximately 95% of the routine as well as special emergency medical problems that occur within a region could be treated there. However, existing referral mechanisms among the regional trauma centers and other hospitals will need to be strengthened. In addition, referral mechanisms will need to be developed or strengthened for the very special or unique emergency medical problems, such as spinal cord injuries and extensive burns, which cannot adequately be treated within a region or perhaps within the state. The integration of the various EMS system components necessary to strengthen these referral mechanisms will be discussed in more detail later in the plan.

4. EMS ADVISORY COUNCILS

On August 21, 1974, the Montana Emergency Medical Services Advisory Council was formed in accordance with the Revised Codes of Montana, Section 82A-110 Creation of Advisory Councils. The suggested by-laws of the EMS Advisory Council are included in Appendix A-2. As stated in the by-laws, the purpose of the EMS Advisory Council is:

> "...to advise the Department of Health in establishing regulations under the Ambulance Licensing Program, upgrading emergency medical care and State Plan for care of sick and injured in times of major disaster."

The EMS Advisory Council has 15 members representing emergency medical personnel from varying occupational fields. Exhibit VI, following this page, lists the members of the EMS Advisory Council as of February, 1975.

As noted in the previous section, local EMS councils have been and are continuing to be developed in Montana under the direction of the State EMS Bureau. The local EMS council's service area may encompass a city, a county, or several counties. As of December, 1974, 19 local EMS councils had been formed. It is anticipated that there will be approximately one local EMS council for each county having an EMS capability when the EMS program is fully implemented. Exhibit VII, following Exhibit VI, is a directory of local EMS councils as of December 1974, and indicates the dates they were formed. A sample of the by-laws of one of the established councils is presented in Appendix A-3.

EXHIBIT VI

Montana EMS Bureau

MONTANA EMERGENCY MEDICAL SERVICES ADVISORY COUNCIL MEMBERS (1)

February, 1975

Patrick E. Wyse, Chairman
Ambulance Services
Conrad, Montana 59425

Harold C. Habein, M. D., FACS
Chairman EMS Committee, Montana
Medical Association
Chairman, Trauma Committee
American College of Surgeons
Montana Chapter
Billings, Montana 59101

Albert E. Goke, Director
Division of Highway Traffic Safety
Department of Intergovernmental Relations
Helena, Montana 59601

William E. Leary, Executive Director
Montana Hospital Association
Helena, Montana 59601

Sidney C. Pratt, M. D., FACS
Moutain States Regional Medical Program
Montana Division
Great Falls, Montana 59401

Curt Wheeling, Director
Communications Division
Department of Administration
Helena, Montana 59601

Lee Michael McGowan
American National Red Cross
Wrangler Division
Great Falls, Montana 59401

Kit G. Johnson, M. D., Chairman
Missoula Area EMS Council
City-County Health Officer
Missoula, Montana 59801

Alvin Windy Boy, EMT
Health Educator
Rocky Boy Indian Reservation
Box Elder, Montana 59521

Beryl McLean, Administrator
Sheridan Memorial Hospital
Plentywood, Montana 59524

Kenneth Jesse, EMT
President of Montana Ambulance and
EMT Association
Ambulance Services
Broadus, Montana 59317

Robert LaFromboise
Service Unit Director
Indian Health Services
Poplar, Montana 59255

Irene Hegg, R. N., Chairman
Montana Chapter - EDNA
St. Vincent's Hospital
Billings, Montana 59101

Nels A. Troedsson, EMT
Ambulance Attendant
Forest Supervisor's Office
Dillon, Montana 59725

J. R. Sims, M. D. FACS
1800 11th Avenue
Helena, Montana

(1) Formed 8/21/74.

Source: Montana EMS Bureau

EXHIBIT VII

Montana EMS Bureau

DIRECTORY OF MONTANA EMERGENCY MEDICAL SERVICES COUNCILS
December, 1974

Big Horn County EMS Council
R. R. Whiting, M. D., Chairman
P. O. Box T
Hardin MT 59034
Telephone: 665-1005
Formed September, 1973

Carbon County EMS Council
William A. Asbury, M. D., Chairman
P. O. Box AO
Bridger, MT 59014
Telephone: 662-3740
Formed December, 1973

Cascade County EMS Council
James Macklin, Chairman
Great Falls Vo-Tech Center
P. O. Box 2428 - Telephone: 761-5800
Great Falls, MT 59403
Formed September, 1973

Custer County EMS for Health Council
M. D. Winter, M. D., Chairman
Drawer 570
Miles City, MT 59301
Telephone: 232-0790
Reorganized in June, 1974

Dawson County
Michael Davis, Chairman
P. O. Box 849
Glendive, MT 59330
Telephone: 365-4438
Formed August, 1974

Flathead Area EMS Council
Kim Potter, Chairman
325 East Evergreen Drive
Kalispell, MT 59901
Telephone: 756-3691

Gallatin County EMS Council
Donald L. Lee, Chairman
15 West Lamme
Bozeman, MT 59715
Formed May, 1974

Granite County EMS Council
Margo Bowers, PHN Chairman
Hall, MT 59837
Telephone: 288-3627
Formed July, 1974

Glacier County EMS Council
Contact either:
John V. Stephens, M. D., PHS Hospital,
Browning, MT 59417
Telephone: 338-2635
or
James R. Markette, M. D.
P. O. Box 338
Cutbank, MT 59427
Telephone: 938-2235
Formed June, 1974

Hill County EMS Council
Stuart A. Reynolds, M. D., Chairman
845 5th Street
Havre, MT 59501
Telephone: 265-4333
Formed January, 1974

Lewis & Clark County EMS Council
Kermit J. Wright, M. D. Chairman
1930 9th Avenue
Helena, MT 59601
Telephone: 442-4510
Formed summer 1972

Park County EMS Council
Bob Grey, Chairman
911 West Calendar
Livingston, MT 59047
Telephone: 222-0895
Formed May, 1974

Roosevelt County EMS Council
Dee Mattely, M. D., Chairman
100 Main Street
Wolf Point, MT 59301
Telephone: 653-2150
Formed January, 1974

EXHIBIT VII (2)

Silver Bow County EMS Council
Fred Gladen, Chairman
400 South Clark Street
Butte, MT 59701
Telephone 792-8361
Reactivated December, 1974

Teton County EMS Council
Mark Johnson, M. D., Chairman
P. O. Box 160
Choteau, MT 59422
Telephone: 466-2630
Formed June, 1974

Yellowstone County EMS Council
Robert K. Snider M. D., Chairman
1230 North 30th Street
Billings, MT 59102

Valley County EMS Council
John Sisson
Glasgow, MT 59330
Telephone: 228-2241
Formed December, 1974

Beaverhead County EMS Council
Dr. Whitfield
Dillon, MT 59725
Telephone:
Formed December, 1974

Missoula EMS for Health Council -MESH
Kit Johnson, M. D. M. P. H. Chairman
Courthouse Annex
Missoula, MT 59801
Telephone: 728-4510
Formed summer 1972

Source: Montana EMS Bureau

The sponsorship of local EMS councils by the State EMS Bureau is designed to help communities help themselves in planning and implementing EMS programs. The local councils advise local governments in the development of local EMS systems.

The composition of the councils should include representatives of organizations and institutions which provide or support emergency services in the community, such as:

- Hospitals
- Ambulance services
- Medical society
- Nurses' associations (including representatives from emergency departments)
- Fire departments and law enforcement agencies
- Health planning groups
- Highway Patrol
- Red Cross

These councils provide the Montana EMS Advisory Council and the EMS Bureau "grass roots" insight into local EMS problems and needs.

In addition to the local EMS councils, three regional EMS councils will be formed. The regional councils will be composed of one representative from each of the local councils within a region. Regional councils will serve as a coordinating body to help ensure continuity of patient care among local EMS systems. The functions of the regional council will include the following:

- Assist in standardizing operational procedures of local ambulance services.
- Assist in determining communications, transportation, training and facility needs within the region.
- Help standardize emergency department policy and procedures as they relate to ambulance services outside the local area.
- Serve as an adhoc committee to the regional coordinator of the EMS Burea.

5. LEGISLATION PERTAINING TO EMS IN MONTANA

Montana has several existing laws pertaining to EMS, including:

- Title 69-Chapter 70, R.C.M. 1947, which provides for the establishment and administration of an emergency medical services program by the Department of Health and Environmental Sciences, as discussed in Section 1 of this chapter.
- Title 69-Chapter 36, R.C.M. 1947, which provides for the establishment of minimum uniform standards and regulations for ambulance services as required by public interest.
- Regulation Number 11-001, which sets forth the regulations for the licensing of ambulance services as authorized by Title 69-Chapter 36, R.C.M. 1947.

Copies of the existing legislation noted above are included in Appendices A-1, A-4, and A-5. Appendix A-6 includes additional Revised Codes of Montana which relate to emergency health care. Due to the length of the listing of codes, only those codes of special interest are provided in full text while the remaining ones are listed by R.C.M. title and code number. Included in the listing are codes pertaining to:

- Statewide communications systems
- First-aid training for school bus drivers
- Disasters
- Emergency vehicles
- Public access in cases of emergency
- A good samaritan act.

In addition to the existing legislation noted above, Appendices A-7 and A-8 include copies of two bills pertaining to EMS which have been presented to the 1975 Montana legislature but not yet adopted. The two bills address the following:

- Senate Bill No. 73 would provide for an emergency medical services account in the earmarked revenue fund with the state funds being made available to local government.
- House Bill No. 72 would:
    - Provide for the certification of basic emergency medical technicians (EMT) by the Board of Medical Examiners.
    - Allow for advanced EMT training.
    - Provide for the adoption of rules and regulations for basic and advanced EMT's by the Board of Medical Examiners.
    - Specify the medical procedures which basic and advanced EMT's may perform.
    - Provide for the protection of EMT's from civil liability.

* * * * *

This chapter provided information relative to Montana's existing and proposed organizational structure for the implementation and continued planning of a regionalized statewide EMS system. The next chapter provides a description of Montana's existing EMS resources and capability. In addition, a description of the program area is presented, including demographic and area characteristics.

II. PLANNING INFORMATION

II. PLANNING INFORMATION

This chapter provides information which is necessary for planning and implementing a state-wide EMS system for Montana. The state's existing EMS resources and capability are discussed and a description of the program area is provided. The implications of the information presented in this chapter will be noted in subsequent chapters.

1. EXISTING EMS RESOURCES AND CAPABILITY IN MONTANA

(1) Manpower Resources

Exhibit VIII, following this page, shows the distribution of selected EMS health manpower categories in Montana by planning region. The following paragraphs review the data presented in the exhibit as well as other pertinent EMS manpower data. In addition, Appendix B-1 contains EMS health manpower data by county for Montana.

(1.1) Physicians

There are approximately 709 working physicians in Montana which yields a statewide physician to population ratio of about 9.8 physicians per 10,000 population. In 1970, the national ratio was about 14 physicians per 10,000 population, which indicates that Montana's ratio is about 30% below the national ratio. In addition, physicians are not distributed equitably throughout the state creating severe shortages in some counties as is noted below:

EXHIBIT VIII

Montana EMS Bureau

EXISTING EMS HEALTH MANPOWER IN MONTANA BY PLANNING REGION
1973 and 1974

		Physician	Physician Assistants		Emergency Medical Technician - Ambulance	
Planning Region	1973 Population	Number	Number	Physician Assistants Per 10,000	Number	EMT -A's Per 10,000
1	243,700	263	2	0.1	188	7.7
2	241,900	229	4	0.2	142	5.9
3	234,900	217½	2	0.1	177	7.5
TOTAL	720,500	709½	8	0.1	507	7.0

Source: Population -- U. S. Department of Commerc
Physicians, R. N. 's L. P. N. 's, Nurse Anesthetis
EMT - A -- Montana EMS Bureau, 1974.

(1) Includes 19 Doctors of Osteopathy.

- Seven of the state's 56 counties have over 75% of the physicians and about 54% of the total population, which yields a ratio of about 13.6 physicians per 10,000 population.

- Five counties, with a combined population of 9,000 persons, have no physicians. Four of the counties are in Region 3.

- Ten counties have only one physician each and a combined physician to population ratio of 3.0 physicians per 10,000 population.

Also, as noted in Exhibit VIII:

- Region 3, the eastern portion of the state, has the least number of physicians and the lowest physician to population ratio, 9.3 physicians per 10,000 population.

- Region 2, the central portion of the state, also has a relatively low physician to population ratio, 9.5 physicians per 10,000 population.

- Region 1, the western portion of the state, has 10.8 physicians per 10,000 population.

As noted in the table below, the number of square miles per physician by planning region ranges from a low of 131 square miles per physician in Region 1 to a high of 343 square miles per physician in Region 3.

TABLE

Planning Region	Square Miles	Physicians	Square Miles Per Physician
1	34,372	263	131
2	38,436	229	168
3	74,330	217.5	342
TOTAL	147,138	709.5	207

Exhibit IX, following this page, shows the number of physicians by specialty and planning region. The physician listing in Exhibit IX includes some physicians, such as Public Health Service and military physicians, which were not included in Exhibit VIII. Exhibit IX indicates the following:

- 18 specialties are represented by the physicians in the state.
- The physicians in Region 3 represent 17 specialties while the physicians in Regions 1 and 2 represent 15 specialties each.
- All the specialties listed which are particularly important to EMS, with the exception of plastic surgery, are represented in each of the three regions. The one plastic surgeon in the state resides in Region 3.
- General practitioners represent almost 39% of the total physicians in the state while general surgeons represent the next highest proportion, 12%, and internists represent almost 10% of the physicians in the state.

It should be noted that there are no medical or osteopathic schools in Montana.

Appendix B-2 contains a listing of physicians by specialty and county in Montana.

(1.2) Nurses

Montana has a higher ratio of registered nurses (R.N.'s) than the national average. As noted in Exhibit VIII, there are about 3,664 employed R.N.'s in Montana, or about 51 registered nurses per

EXHIBIT IX

Montana EMS Bureau

PHYSICIAN SPECIALTY BY PLANNING REGION
1973

Physician Specialty	Planning Region 1	2	3	Total
Allergy	0	0	1	1
Anesthesiology	8	10	10	28
Dermatology	2	3	3	8
General Practice	99	96	93	288
Internal Medicine	32	19	23	74
Neurological Surgery	1	3	4	8
Neurology	1	0	2	3
Obstetrics/Gynecology	19	15	12	46
Ophthalmology/Otology/ Laryngology/Rhinology	20	16	16	52
Orthopedic Surgery	12	10	10	32
Pathology	8	9	5	22
Pediatrics	11	9	9	29
Plastic Surgery	0	0	1	1
Proctology	0	1	0	1
Roetgenology/Radiology	15	12	10	37
Surgery	29	34	30	93
Thoracic Surgery	7	2	2	11
Urology	2	6	6	14
TOTAL	266	245	237	748

Source: Montana Comprehensive Health Planning Agency, 1973.

Note: This listing includes some physicians, such as Public Health Service and military physicians, that were not included in Exhibit VIII.

10,000 population. Nationally, there were approximately 36 employed R. N.'s per 10,000 in 1972. In addition, the exhibit indicates that:

- Region 2 has the greatest number of R. N.'s, 1,378, or 57 R. N.'s per 10,000 population.
- Region 1 has 1,317 R. N.'s, or about 54 R. N.'s per 10,000 population.
- Region 3 has the least number of R. N.'s, 969 or about 41 R. N.'s per 10,000 population.

While Montana has a higher ratio of R. N.'s, about 70% of the R. N.'s are located within just 7 of the state's 56 counties, while the remaining 30% serve the other 49 counties. Two counties, both in Region 3, have no R. N.'s, and two other counties in Region 3 have only one R. N. each.

In addition to the R. N.'s discussed above, Exhibit VIII indicates that Montana has 1,522 licensed practical nurses (L. P. N.'s), which represents a ratio of about 21 L. P. N.'s per 10,000 population. As noted above for both physicians and R. N.'s, Region 3 also has the least number of L. P. N.'s, with almost 17 L. P. N.'s per 10,000 population; while Region 1 has the greatest number, with almost 25 L. P. N.'s per 10,000 population; and Region 2 has about 22 L. P. N.'s per 10,000 population.

Montana has five schools of nursing (R. N.) and ten programs of practical nursing. In 1972 about 143 students graduated from the R. N. programs and 204 students graduated from the L. P. N. programs.

(1.3) Nurse Anesthetists

Montana has 79 nurse anesthetists, as shown in Exhibit VIII, for a ratio of 1.1 nurse anesthetists per 10,000 population. The nurse anesthetists are distributed relatively evenly between the three planning regions. Region 3 has 30 nurse anesthetists while Regions 1 and 2 have 24 and 25 nurse anesthetists respectively.

(1.4) Physical Therapists

There are 65 physical therapists in Montana. As shown by Exhibit VIII, Regions 1 and 2 have 29 and 24 physical therapists respectively, while Region 3 has only 12 physical therapists.

(1.5) Physician Assistants

Exhibit VIII indicates that Montana has only eight physician assistants throughout the state. Region 2 has four physician assistants, while Regions 1 and 3 have two physician assistants each.

(1.6) Ambulance Attendants

Montana has almost 1,300 ambulance attendants. However, only 507 of these persons or less than 40% of the total, are certified Emergency Medical Technicians - Ambulance (EMT-A's). As shown in Exhibit X, following this page:

EXHIBIT X

Montana EMS Bureau

LEVEL OF TRAINING OF EXISTENCE AMBULANCE PERSONNEL BY PLANNING REGION 1974

Planning Region	Total Ambulance Attendants	Ambulance Attendant Level of Training: Advanced Red Cross	Ambulance Attendant Level of Training: EMT-A	Percent EMT-A
1	488	300	188	38.5%
2	341	199	142	41.6%
3	446	269	177	39.7%
TOTAL	1,275	768	507	39.8%

Source: Montana EMS Bureau.

- Regions 1 and 3 have the largest number of ambulance attendants, 488 and 446 respectively, while Region 2 has 341 ambulance attendants.
- 768 ambulance attendants in the state meet the state's minimum training requirement of Advanced American Red Cross First Aid. Regions 1 and 3 have 300 and 269 of these ambulance attendants respectively, while Region 2 has 199 ambulance attendants with Advanced Red Cross First Aid training.
- Regions 1 and 3 also have the largest number of EMT-A's, 188 and 177 respectively, while Region 2 has 142 EMT-A's.
- Less than 50% of the ambulance attendants within each region are EMT-A trained.

A county by county analysis indicates that 18 of Montana's 56 counties are without EMT- A trained ambulance attendants. Over 11% of the state's population live within these 18 counties. In addition it should be noted that the majority of these counties with less adequately trained ambulance personnel are the same rural counties also lacking in physicians and nurses. The lack of adequate emergency medical resources, both personnel and facilities (as noted later in the plan), emphasizes the need for improved emergency transportation as discussed in more detail in Chapter IV.

(1.7) Dispatcher

There are, at this time, few Emergency Medical Service personnel in Montana specifically trained as dispatchers for emergency ambulance services. There are only six 24-hour multidiscipline public safety dispatching centers in Montana and they are contiguous with the law enforcement community. However, throughout the state there are 27 county sheriff's offices and 42 local police departments that provide at least one public safety mobile radio dispatching position on a 24-hour basis. These resources provide a minimum of 350 experienced dispatchers who are at least trained to Associated Public Safety Communications Officers (APCO) standards. These personnel provide a nucleus available for additional training as emergency medical dispatchers.

The four "911" centers in Montana located at Billings, Choteau, Conrad and Glendive, and those planned for Great Falls, Havre and Missoula, as discussed later in the plan, are not expected to add significantly to the number of EMS dispatchers available. These personnel have already been identified as part of the available manpower resources in the law enforcement community.

(1.8) First Responders

In addition to the previously listed categories of health manpower, 13,359 so-called "first responders" are available in Montana. These persons range from ski patrolmen and law enforcement officers to firemen and search and rescue members..

Although it is known that approximately 150 of these first responders have EMT training, the adequacy of the training of the other first responders in emergency procedures is undetermined.

(2) Training Resources

A well functioning emergency medical service delivery system requires the training of numerous persons ranging from the bystander at the scene of an accident to the nurses and physicians treating the patient at the hospital. This section describes the existing EMS training program and training efforts in Montana.

(2.1) Broad Based Training For The Public

The American National Red Cross is primarily responsible for the training of the general public in emergency care procedures. Its first aid training programs are designed to accomodate persons from the fifth grade level to the adult level. These programs are for those persons who occasionally encounter emergencies as well as for those who routinely deal with medical emergencies. During the fiscal year ending June 30, 1974, the American Red Cross in Montana had:

- 99 first aid instructors
- 414 multimedia instructors

- 38 basic first aid instructors
- 15 first aid instructor trainers
- 13 multi-media instructor trainers
- 4 basic first aid instructor trainers.

The Emergency Medical Services Bureau received a grant from the Regional Medical Program in 1974, to increase the number of first aid instructors in rural Montana. This program should significantly improve both the quantity and quality of first aid education in Montana. First aid information was disseminated to school teachers during their annual conventions. In addition, attempts are being made to encourage Red Cross first aid training in the school system where in many cases, the Medical Self-Help course had previously been offered.

Training the general public in cardiopulmonary resuscitation (CPR) is a critical element of a complete cardiac care system. Although there has been little training of the public in CPR to date, the American Heart Association now has a four-hour program in cardiopulmonary resuscitation and most of the American Red Cross first aid instructor trainers are now also instructor trainers in CPR. In addition to the Heart Association, the Red

Cross will soon have a CPR course available. The Heart Association and Red Cross in Montana have jointly agreed to honor each others certification and instructors in CPR.

(2.2) Special Services Training

The special services personnel in Montana noted below currently receive the following level of EMS training:

- Montana Highway Patrol - The Montana Highway Patrol is currently taught the Advanced First Aid and Emergency Care course as part of their original training. Recertification requirements vary among the divisions throughout the state. A limited number of patrolmen have completed the 40 hour Department of Transportation Crash Management Course.
- Law Enforcement Officers - Under the Police Officers Standards of Training, every new law enforcement officer is required to attend the Montana Law Enforcement Academy in Bozeman. Until recently, the Medical Self-Help course was taught. Now, an additional number of hours have been allotted to first aid training; however, it is not known at this time what course will be offered.
- Firefighters - Firefighters, statewide, receive only minimal training in emergency medical care procedures.
- Ski Patrol - The American Red Cross Standard First Aid and Personal Safety courses plus ten hours of winter first aid training are currently required of any new candidate for the National Ski Patrol System. Senior ski patrolmen are required to have Advanced First Aid and Emergency Care training.

(2.3) Emergency Medical Technician Training

The number of Basic 81-hour Emergency Medical Technician programs taught in Montana has increased at a rapid rate since its inception in 1971. Local areas have shown, and continue to show, considerable interest in organizing courses on a volunteer basis. Since 1971, there have been over 1,200 EMT's trained in Montana of which 542 have been directly involved with a licensed ambulance service. Certification criteria, as shown in Appendix A-5, have been adopted by the Emergency Medical Services Bureau which should improve the quality of EMT training.

In addition to volunteer programs, recent grants under Section 776 of the EMS Act of 1973 made funds available to institute EMT training in ten educational centers throughout the state. This is a step toward establishing an on-going system of training EMT's.

(2.4) Extrication Training

The EMS Bureau in cooperation with various agencies, sponsored a series of six workshops held throughout the state in 1973 which trained approximately 200 persons in the basic techniques of automobile extrication.

(2.5) Professional Training

Under the auspices of the Mountain States Regional Medical Program (MS/RMP), a workshop was held in 1974 to train nurses in emergency care procedures. Also, the MS/RMP sponsored a pilot project to train R.N.'s in ambulance advanced life support techniques. A training grant under the EMS Act of 1973 makes funding available for professional training. The EMS Bureau subcontracted with the Montana Medical Education and Research Foundation (MMERF) for the conduct of this training.

(2.6) Communications Training

Currently, no training program exists in the state to train emergency medical service personnel in radio communications procedures.

(3) Communications Resources

A dominant feature of Montana's topography is the Continental Divide which runs north and south through the western section of the state. As discussed in more detail later in this chapter, the state experiences elevation extremes which vary from 12,799 feet at Granite Peak in Park County to 1,820 feet at Koutenai River on the Idaho border in Lincoln County. Both of these extremes are in the western half of Montana on each side of the Continental Divide. This indicates the precipitous topography of a major portion of Montana which disburses the state's population into the valleys surrounded by mountains rising several thousand feet on either side. This topography presents an extremely difficult communications environment that is particularly difficult in the propagation of ultra high frequency (UHF) radio communications.

The following paragraphs address each of the existing major communications systems that interface with the proposed delivery of emergency medical services. A more detailed discussion of EMS communications is contained in Appendix G .

(3.1) Telephone Systems

Including Mountain Bell Telephone, there are 18 separate operating telephone companies in Montana. Of these, nine are independent telephone companies in addition to Mountain Bell Telephone Company, and eight are cooperative telephone companies. The boundaries of most of these major telephone companies are shown in Appendix G.

The problems associated with this communication system fragmentation comes from the realization that, on the average, close to 90 percent of the requests for emergency medical assistance are initiated through the telephone system either directly to a medical services facility or through law enforcement agencies. Placing a call to the individual agency best able to deliver emergency medical service requires first, the identity of the telephone service in which the call is initiated and second, the identification of the correct telephone number within that telephone exchange. This is a most difficult burden to place upon a person in need of emergency medical assistance.

Toll telephone service and WATS systems throughout the State of Montana are almost entirely owned by Mountain Bell Telephone. This state-wide integrated toll service by Mountain Bell offers the opportunity of reducing the extremely large number of emergency telephone numbers in the state to one WATS number or to a very few WATS numbers, as discussed in more detail later in the plan and in Appendix G.

In 1968, the Presidential Commission on Civil Disorder had as one of its recommendations the establishment of a single emergency telephone number. Since that time, the 911 telephone number has generally been recognized and endorsed as the nationwide emergency telephone number. There are currently four operating "911" centers in Montana and these serve less than 10 percent of the state's population. The locations of the four existing "911" centers are as follows:

- Billings (Region 3), with a population of 61,581
- Choteau (Region 2), with a population of 1,586
- Conrad (Region 2), with a population of 2,770
- Gendive (Region 3), with a population of 6,305.

Three additional 911 installations in Montana are planned over the next two years, as follows:

- The next installation within the year is planned for Havre in Hill County (Region 2) and will serve a population of approximately 10,500.

- The second installation is planned for the city of Missoula (Region 1) and will serve a population of approximately 30,000.

- The third installation is planned for Great Falls in Cascade County (Region 2) and will serve a population of approximately 60,000.

When these three additional 911 systems are operating, there will be one installation in Region 1, four installations in

Region 2 and two installations in Region 3. Approximately 25 percent of the population of Montana will then be served by 911 systems.

The capability of the 911 installations noted above and the difficulties experienced in implementing "911" in Montana are discussed in Appendix G.

(3.2) Centralized Dispatching

Six dispatching centers in Montana are organized, authorized and capable of directly dispatching the emergency delivery resources of police, fire and ambulance services on a 24-hour basis, as shown in Exhibit XI, following this page. In addition, one such dispatching center is planned in Missoula for activation in 1975. Only two of the existing 911 centers noted earlier (both of which are in Region 2) are configured to dispatch other than law enforcement units.

In addition to the six existing Centralized Dispatching Centers and the one planned for Missoula, there are 41 municipal police departments and 27 county sheriff's offices that provide 24-hour law enforcement dispatching facilities. Of the 108 public and commercial licensed ambulance services

EXHIBIT XI

Montana EMS Bureau

CENTRALIZED MULTI-AGENCY DISPATCHING CENTERS

		Telephone Lines			Dispatching Frequencies					
Center Name	Location	In	Out	911 System	Police	Fire	Ambulance	Sheriff	Highway Patrol	Search and Rescue
Big Horn County CD and Emergency Service	Hardin (Region 3)	2	2	No	39.58 39.98 39.82	39.58 39.98	155.145 39.82	39.58 39.98 39.82	39.82	-
City of Great Falls	Great Falls (Region 2)	11	19	No	155.010 155.013	158.760	155.220 39.82	39.82	39.82	47.58
Glacier County Sheriff	Cut Bank (Region 2)	5	5	No	39.82	39.86	39.82	39.86	39.82	-
Pondera County Sheriff	Conrad (Region 2)	6	6	Yes	39.82	39.82	39.82 155.085 155.805	39.82	39.82	-
Teton County Sheriff	Choteau (Region 2)	5	5	Yes	39.82 39.88	39.86	39.82	39.86 39.82 39.88	39.82	-
Toole County Sheriff	Shelby (Region 2)	5	5	No	39.82	-	39.82 155.085 155.805	39.82	39.82	
* Unified Communications Center	Missoula (Region 1)	6	6	Yes	39.94	154.430	156.280	39.88	39.82	155.220

* The Dispatching Center at Missoula is planned for activation in 1975. Information in the table is planning information.

Source: Information in this exhibit was received directly from the appropriate dispatch centers.

in Montana, 104 of them carry primary two-way radio equipment in 39.82 MHz, placing them in communication with these 608 law enforcement dispatching centers. Of these 104 ambulance services with radio equipment on 39.82 MZh:

- 35 of the ambulance services are in Region 1
- 28 of the ambulance services are in Region 2
- 41 of the ambulance services are in Region 3.

Data show that approximately 30 percent of all ambulance calls for emergencies and non-emergency service in Montana are initiated through the police agencies. While the ambulance crews may be alerted by paging system, by telephone or by other prearranged alarming systems, once the ambulance is on its way, primary communication is with the police or sheriff's dispatcher on 39.82 MHz.

The distribution of 24-hour dispatching centers and the location of those dispatching centers that offer centralized dispatching of all emergency services are shown in Appendix G . It should be noted that large land areas in Region 3, such as in the southeast corner of the state and in the east central part of the state, make no provision for 24-hour radio communication coverage for any public safety or emergency service. In addition, with the possible exception of the base at Helena, the Montana State Highway Patrol does not provide 24-hour radio communications dispatching service from its six base stations. Duty patrols are dispatched by the previously identified Sheriff's Offices when the Highway Patrol base stations are not manned.

(3.3) Ambulance To Hospital Communications

The ambulance-to-hospital communications in Montana is based upon the VHF high band frequency 155.280 MHz. Of the 62 acute general hospitals in Montana that provide 24-hour emergency room service, 27 of those, or 44% are licensed and operating on 155.280 MHz for communications with ambulance vehicles. The balance of the 35 acute general hospitals report no radio equipment except for an occasional remote to Civilian Defense operations. Of the 108 public and commercial licensed ambulance services in Montana, 45 of them or 42%, report two-way ambulance-to-hospital communications on 155.280 MHz. Seventeen of these ambulance services are in Region 1, while twelve are in Region 2 and sixteen are in Region 3. In addition, 18 of these 45 ambulance companies also report dual channel capability on 155.340 MHz in addition to 155.280 MHz. However, it is believed that all services that have installed 155.280 MHz equipment also have the capability to communicate on 155.340 MHz as well.

There are no data that indicates the use of the ambulance-to-hospital radio frequencies for dispatching the ambulance. Total use of 155.280 MHz or 155.340 MHz between the ambulance and the hospital is limited to clinical or advisory communication relative to patient care or to alert the hospital of the estimated arrival time of the ambulance and the character of the emergency. In only one case, at the Pondera County Sheriff's Office in Conrad (Region 2), has phone dispatch capability been installed to enable the Dispatching Center to reach a doctor by telephone and patch the doctor through to the ambulance by the ambulance radio communications system.

For the 59 ambulance services that rely entirely upon their low band VHF radios (39.82 MHz) and where no phone patch capabilities exist, communications between the ambulance vehicles and the hospital will be through the dispatcher, usually a law enforcement agency. There is no direct communication between ambulance and hospital. Information must be relayed by telephone between the dispatcher and the hospital and relayed by radio between the dispatcher and the ambulance vehicle.

A tabulation and map indicating the location of all licensed ambulance services in Montana and the two-way radio capability of each is shown in Appendix G.

(3.4) Ambulance Dispatching Communications

The initial dispatch of ambulance vehicles is conducted by telephone in the majority of cases. The exception is those few cases where ambulance crews are on duty at the ambulance location on a 24-hour a day basis and the call for assistance comes directly to the ambulance services. In this case the dispatch is made directly to the ambulance crew. Alerting systems in the form of pagers and multipoint private line telephone systems are commonly employed to contact an on-call ambulance crew, although individual telephone calls to the duty stand-by personnel are common.

After the ambulance has been dispatched, further communications with the vehicle relative to instruction or vehicle management are conducted by the law enforcement agencies on 39.82 MHz. As noted above, ambulances in Montana that are equipped with two-way low band radio communications employ 39.82 MHz as their primary communications frequency. The hospital-to-ambulance frequency 155.280 MHz is not used for dispatching or vehicle management.

(3.5) Hospital-to-Hospital Communications

The primary communications system between hospitals in Montana is the telephone system. Included in Appendix G, is a tabulation and map indicating the location of all hospitals in Montana that provide 24-hour per day emergency room service together with the communications radio frequency and the radio paging frequency used by those that are licensed for these radio services.

The frequency 155.340 MHz has long been designated by the medical services as the hospital-to-hospital radio channel. Fifteen of the 19 hospitals licensed for this frequency have selective digital coding capability installed in anticipation of inter-hospital selective calling. Of the 19 hospitals licensed for this frequency, 8 hospitals are located in Region 1, 5 hospitals are located in Region 2 and 6 hospitals are in Region 3. However, with the exception of those hospitals that lie in the valley between Whitefish and Kalispell in Flathead County and Polson in Lake County, topographic isolation between hospitals due to mountainous terrain has prevented the use of the radio as a back-up communication system to the telephone system.

(3.6) Public Safety Communications

Because of the precipitous mountain topography of the state with attendant radio propagation limitations, regional and state radio communications services have generally been developed in the 39 MHz range. Control links for remote repeaters and remote base stations have used frequencies in the high VHF band and in the UHF range where unidirectional line of sight propragation paths are appropriate.

Two radio frequency networks have been highly developed; the Statewide Emergency network on 39.82 MHz and the Department of Highways network on 47.04 MHz. The following paragraphs briefly describe the radio communications capability of the Statewide Emergency network, the Department of Highways and the Department of Natural Resources and Conservation.

- Statewide Emergency - Every police agency in the state with the exception of Billings, Great Falls, and Helena Police Departments have two-way communication capability on 39.82 MHz as does every County Sheriff's Office. However, due to the mountainous topography in the western half of Montana and the attendant radio propagation problems, complete statewide base-mobile radio communications on 39.82 MHz is not possible.

In addition to the radio communications coverage provided on 39.82 MHz, a backbone law enforcement teletype system (MLETS) is also available for public safety communication.

- Department of Highways - The next largest state-wide radio communications system in Montana is that of the Department of Highways. This state-owned system on 47.04 MHz is interesting from the standpoint of facilities that might be employed by the state to provide radio coverage for any other state owned system. The system is a base-to-base and base-to-mobile system similar to the type envisioned for EMS. However, this system does not have the large number of base stations as does the 39.82 MHz system and areas where mobile-base communications are unreliable are significant. It should be noted that the Department of Highways also has a statewide teletype network.

- Department of Natural Resources and Conservation - The Department of Natural Resources and Conservation has need for reliable radio communications in the most rugged of the terrain around the mountains and forests. This department operates two radio systems; one in the 31 MHz range in the northwest corner of the state and the other in the 151 MHz range in the southwest and central portions of the state.

A more detailed description of the above radio communication systems is presented in Appendix G.

(4) Transportation

Montana has a total of 100 public ground ambulance services. Exhibit XII , following this page, lists the public ambulance services in Montana by region and category of service. In addition, there are approximately 8 industrial owned ambulance services. The

EXHIBIT XII

Montana EMS Bureau

SUMMARY OF EXISTING AMBULANCE CAPABILITY IN MONTANA BY PLANNING REGION 1974

	Region 1	Region 2	Region 3	Total
Ambulance Services				
Private	6	4	7	17
Local Government	7	10	15	32
Volunteer	21	10	15	46
Other	0	2	3	5
TOTAL	34	26	40	100
Ambulance Vehicles (year)				
1960 and earlier	12	5	3	20
1961 - 1965	8	7	11	26
1966 - 1970	13	12	17	42
1971 - 1975	13	13	16	42
TOTAL	46	37	47	130
Ambulance Vehicles (type)				
Suburban	5	6	6	17
Coach	18	17	13	48
Van	14	9	23	46
Station Wagon	5	3	5	13
Modular and other	4	2	0	6
TOTAL	46	37	47	130
Vehicle Design and Equipment				
Meets State Design Criteria	5	2	8	15
Minimum Equipment by State Law	46	37	47	130
Extrication Equipment	10	5	10	25
Cardiac Monitoring Equipment	0	1	0	1
Radio Communications Equipment (by vehicle)				
155.280 MHz	25	17	16	58
39.82 MHz	13	12	26	51
Other	4	4	0	8
None	4	4	5	13
Personnel				
Services with:				
no EMT's	11	6	18	35
1% - 25% EMT's	4	5	3	12
26% - 50% EMT's	8	5	8	21
76% - 100% EMT's	4	6	4	14

Note All non-EMT's are trained to a level of Red Cross Advanced First Aid as required by State Law.

Source: Montana Emergency Medical Services Bureau 1974.

industrial ambulance services are not included in the exhibit since they primarily provide service to the particular firm which owns and operates them.

As shown by Exhibit XII:

- Regions 1, 2 and 3 have 34, 26 and 40 ambulance services respectively.
- About 46 of the ambulance services in the state are listed as volunteer, while 32 are operated by local government and 17 ambulance services are commercially owned. The remaining 5 ambulance services are operated by fire departments, hospitals or funeral homes.

It should be noted that Exhibit XII indicates the primary classification of an ambulance service. In some cases, an ambulance service may be a combination of the classifications in the exhibit.

Exhibit XII, also presents a summary of the existing ambulance capability in Montana by planning region. Appendix B-3 contains a detailed listing of ambulance services, showing the location by county, type of service, year and make of ambulance, number and level of training of ambulance personnel, as well as the other information shown in Exhibit XII. As shown by the exhibit or indicated in Appendix B-3:

- The 100 ground ambulance services available to the public in the state operate 130 vehicles fully equipped with the 1967 American College of Surgeons equipment list, which is the minimum equipment requirement in Montana. (See Appendix A-5).

- Of the 130 ambulances in the state:

  - Region 1 has 46 ambulances, or about 35% of the total

  - Region 2 has 38 ambulances, or about 28% of the total

  - Region 3 has 48 ambulances, or over 36% of the state total.

- Only one county, Golden Valley in Region 3, does not have an ambulance service.

- 15 of the ambulances in the state, or 12% meet the state minimum design criteria for new vehicles as set forth in Regulation Number 11-001, Licensing of Ambulance Services, which was adopted on March 24, 1974. (See Appendix A-5). Region 3 has 9 ambulances which meet the state minimum design criteria while Regions 1 and 2 have 5 ambulances and 4 ambulances respectively, which meet this criteria.

- 48 of the 130 vehicles are couch type vehicles and 36 vehicles are vans. The remaining 36 vehicles include station wagons, carryalls, suburbans and modulars.

- 68%, or 88 of the 130 vehicles are five years old or older (1970 or earlier). Approximately 35% of the vehicles are ten years old or older (1965 or earlier), and 15% are 15 years old or older (1960 or earlier).

- 117 of the public ambulances in the state, or about 90% are equipped with some form of radio communications equipment. Section (3) of this chapter discussed ambulance communications in more detail.

- 25 ambulances in the state carry extrication equipment while only 1 ambulance (located in Region 2) carries cardiac monitoring equipment.

Although the Montana EMS system currently does not include an organized or coordinated air transportation system, there are a number of licensed air taxi services in the state that provide medical transportation to appropriate facilities. It should be noted that there are currently no federal standards for air ambulances. However, the Federal Aviation Administration has published an Advisory Circular (AC No: 67-1, 3/4/74) which provides information governing the transport of patients by air.

In addition, it should be noted that no water ambulance capability current exists in the state.

(5) Facilities and Critical Care Services

Montana has a total of 70 inpatient hospital facilities in the following categories:

- 62 acute general hospitals, including
  - 20 hospitals in Region 1
  - 17 hospitals in Region 2
  - 25 hospitals in Region 3

- 2 Veterans Administration hospitals- one in Region 2 and one in Region 3.
- 3 Indian Health Service hospitals- two in Region 2 and one in Region 3.
- 1 state respiratory hospital, which is located in Region 1.
- 1 state mental health hospital, which is located in Region 1.
- 1 military hospital in Region 2

Although all the hospital facilities are potential emergency resources, especially in a mass disaster situation, the federal hospitals primarily serve selected populations and are not subject to state regulations. In addition, the state hospitals are not designed for the provision of emergency services. Therefore, this section will concentrate on the capabilities of the acute general hospital facilities. It should be noted, however, that with the exception of the military hospitals, Appendix B-4 lists all inpatient hospital facilities in the state and indicates the following information:

- Location
- Bed capacity
- Volume of admissions and emergency room visits for 1973
- Physician staffing patterns of the emergency department
- Emergency services capability, including the availability of critical care units and other special services.

Exhibit XIII , following this page, indicates the number of acute general hospitals in the state by planning region and bed capacity. In addition, a map showing the location and bed capacity of the hospitals is presented in Exhibit XIV, following Exhibit XIII. As shown in the exhibits:

- Of the 62 acute general hospitals in Montana, only 12 hospitals or 19% have 100 beds or more. Four of these hospitals are located in Region 1, five are in Region 2 and three of the hospitals are in Region 3. As can be expected, the hospitals with 100 or more beds are located in the larger cities in the state, including:
    - Missoula (Region 1) - 2 hospitals
    - Butte (Region 1) - 2 hospitals
    - Great Falls (Region 2) - 2 hospitals
    - Bozeman (Region 2) - 1 hospital
    - Havre (Region 2) - 1 hospital
    - Helena (Region 2) - 1 hospital
    - Miles City (Region 3) - 1 hospital
    - Billings (Region 3) - 2 hospitals
- Nine hospitals in the state have between 50 and 99 beds. Four of these hospitals are in Region 1, two are in Region 2 and three of the hospitals with 50 to 99 beds are in Region 3.
- Over 66% of the acute general hospitals in Montana have less than 50 beds, and 23 of these hospitals, or 37% of the 62 hospitals in the state have less than 25 beds.
- Seven counties in Montana, one in Region 2 and six counties in Region 3, have no acute general hospitals.

EXHIBIT XIII

Montana EMS Bureau

ACUTE GENERAL HOSPITAL FACILITIES IN MONTANA BY PLANNING REGION AND BED CAPACITY

1974

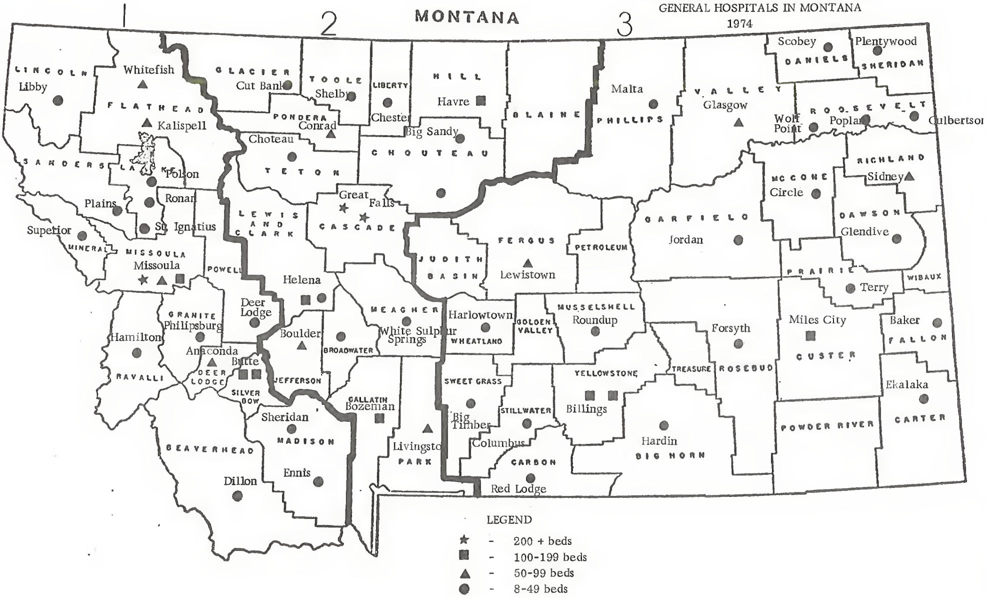
Planning Region	Total Acute General Hospitals	Number of Acute General Hospitals With			
		8-24 Beds	25-49 Beds	50-99 Beds	100-270 Beds
1	20	5	7	4	4
2	17	7	3	2	5
3	25	11	8	3	3
TOTAL	62	23	18	9	12

Source: Montana State Departmentof Health and Environmental Sciences, Division of Hospitals and Medical Facilities

EXHIBIT XIV

Montana EMS Bureau

LOCATION AND BED CAPACITY OF ACUTE
GENERAL HOSPITALS IN MONTANA
1974



Source: Montana State Department of Health and Environmental Sciences, Division of Hospitals and Medical Facilities.

Generally, hospitals with larger bed capacities have a broader scope of services than the smaller hospitals. Therefore, Exhibit XIV also provides an indication of the location of the hospitals in the state with the broadest scope of services. In addition, as noted earlier, Appendix B-4 lists all the hospitals in the state and indicates selected emergency care services that are available. Exhibit XV, following this page, is a summary of the data contained in the appendix. As shown by the exhibit and indicated in the appendix:

- Each acute general hospital in Montana has an emergency department with at least a physician on call, as required by state licensure.
- Only the three hospitals, noted below have full-time emergency room physicians:
  - St. Patrick Hospital in Missoula (Region 1)
  - Montana Deaconess Hospital in Great Falls (Region 2)
  - St. Vincent's Hospital in Billings (Region 3)

  These hospitals generally provide the broadest scope of services, including those services noted in the appendix, and will serve as the regional trauma centers.
- Almost all hospitals in the state have laboratories, pharmacies and surgical facilities. However, the quality and sophistication of these services vary considerably among hospitals.
- 36 hospitals have post operative recovery facilities.
- 47 hospitals have intensive care and/or coronary care facilities.

EXHIBIT XV

Montana EMS Bureau

EMERGENCY SERVICES AND CRITICAL CARE CAPABILITIES FOR ACUTE GENERAL HOSPITALS IN MONTANA 1974

	Planning Region						
	1		2		3		
	Number	Percent	Number	Percent	Number	Percent	State Total
Total Acute General Hospitals	20	100%	17	100%	25	100%	62
Emergency Department Physician Staffing							
Full-time Emergency Room Physician	1	5%	1	6%	1	4%	3
In Hospital 24-hour/day(1)	0	-	0	-	0	-	0
On-call	19	95%	16	94%	24	96%	59
Selected Emergency Services and Critical Care Capability							
Laboratory	20	100%	17	100%	25	100%	62
Blood Bank	13	65%	12	71%	11	44%	36
Pharmacy	20	100%	17	100%	24	96%	61
Surgical Suite	19	95%	17	100%	24	96%	60
Post Operative Recovery	14	70%	10	59%	10	40%	34
I. C. U./C. C. U.	17	85%	11	65%	19	76%	47
Neo-Natal I. C. U.	1	5%	1	6%	1	4%	3
Acute Psychiatry	1	5%	1	6%	3	8%	5
Detoxification Unit	0	-	1	6%	1	4%	2
Poison Control Center	0	-	3	18%	0	-	3
Burn Center	0	-	0	-	0	-	0
Spinal Cord Center	0	-	0	-	0	-	0

Source: American Hospital Association Guide Issue, 1974; Montana Red Cross for blood banks; F. D. A. for poison control centers; and direct communication with hospitals.

(1) Hospitals which do not have a full-time emergency room physician but have a physician in the hospital 24 hours a day.

- Only three hospitals in the state, one in each region, have neonatal intensive care units. These hospitals are located in Missoula, Great Falls and Billings. Two of the neonatal I. C. U. 's are located in the regional trauma centers in Missoula and Great Falls.

- Only five hospitals, two in Billings (Region 3), one in Miles City (Region 3), one in Great Falls (Region 2) and one in Missoula (Region 1), provide acute psychiatric units. Each trauma center has an acute psychiatric unit.

- Although all hospitals in Montana have detoxification capabilities, only two hospitals have formal detoxification programs. One hospital is the trauma center in Great Falls (Region 2) and the other hospital is the trauma center in Billings (Region 3).

- All hospitals in Montana have poison treatment capabilities; however, only three hospitals have poison control centers which have been approved by the Food and Drug Administration. These hospitals are located in Bozeman, Helena and Great Falls (all in Region 2). The trauma center in Great Falls provides this service.

- There are no burn centers or spinal cord and brain injury centers in Montana. However, relatively severe burns can be treated at several hospitals in the major cities and the three trauma centers have facilities for neurological surgery.

In addition to the state mental hospital in Warm Springs (Region 1), there are several other mental health facilities located throughout the state. Appendix B-5 describes the Montana's mental health program in more detail; however, it should be noted that:

- Region 1 has a Mental Health Center, five Mental Health Center Satellites and one Mental Health Clinic.

- Region 2 has a Mental Health Center, two Mental Health Center Satellites, and a Mental Health Clinic.

- Region 3 has two Mental Health Centers and eight Mental Health Center Satellites.

As noted in the appendix, these facilities offer emergency psychiatric services.

It should be noted that several out-of-state resources have been identified for the provision of certain critical care and emergency related services which are limited or not offered in Montana, such as burn, spinal cord injury and poison centers. Appendix B-6 provides a description of the services offered by these facilities.

(6) Standard Medical Record Keeping

Montana currently has a somewhat generalized system of standardized medical record keeping for emergency responses. This system consists of a prototype statewide ambulance trip report form. In addition, standard inpatient care and discharge summary records are maintained which are in conformance with state and federal codes. Appendix B-7 contains a copy of the ambulance trip report form including the emergency room report section.

(7) Consumer Information And Education

Methods of educating the public in Emergency Medical Services have included newspaper articles, television talk shows and radio programs, a bi-monthly EMS Newsletter and public service announcements on radio and television. An original set of five television announcements were sent to selected television stations and general radio public service announcements were distributed throughout the state. In addition, specific public service announcements have been written for use in individual areas.

A brochure describing the functions of the EMS Bureau is currently being developed and another brochure discussing the need for first aid training in the schools has been distributed to teachers throughout the state.

Another method of informing the public about EMS is through displays set up at conventions. Assistance with displays is available from the EMS Bureau. Assistance is also available from the EMS Bureau for narrating films of disaster exercises.

Publicity packets and a speakers bureau are future projects designed to assist a local community in its efforts to promote EMS. In addition, the EMS Bureau works with the local EMS councils to help them develop their own public information program.

(8) Evaluation of Existing EMS In Montana

A comprehensive EMS program evaluation system is not now operating in Montana. The only ongoing efforts at evaluation take place in the two subsystem areas of ambulance standards and EMT-A training. Unfortunately, evaluation in both of these areas is almost exclusively input or structural evaluations which check the levels of equipment and personnel training. In addition, limited process evaluation occurs in conjunction with ambulance licensing regarding the examination of some ambulance trip reports. These reports are intermittently perused for completeness and discrepancies between clinical impressions and therapy rendered.

(9) Disaster Planning

Current plans for responding to disaster situations in Montana come under the planning authority of the Montana Civil Defense Agency. The Department of Health and Environmental Sciences has developed an emergency health plan to assure the most effective utilization of health resources during periods of national or major natural disaster. This is a component of the State Civil Defense Disaster Plan. The original plan was developed in 1969, and has been revised periodically. Each of the 56 counties in Montana has a Civil Defense Director and a county disaster plan. Each county civil defense disaster plan includes an emergency health plan.

As local EMS councils are formed, the local civil defense directors are becoming members. Each EMS council has as a part of its responsibility, disaster planning; consequently, the emergency health sections of local civil defense disaster plans are being updated and improved.

There are six civil defense planning districts, as indicated by Exhibit XVI, following this page. Each district has its own Standard Operating Procedures and is an integral part of the total statewide disaster plan.

(10) Mutual Aid Agreements

Mutual Aid agreements presently exist among all counties within the state. These agreements were developed for civil defense purposes and provide for mutual assistance among counties in times of disaster. A sample mutual aid agreement is contained in Appendix B-8.

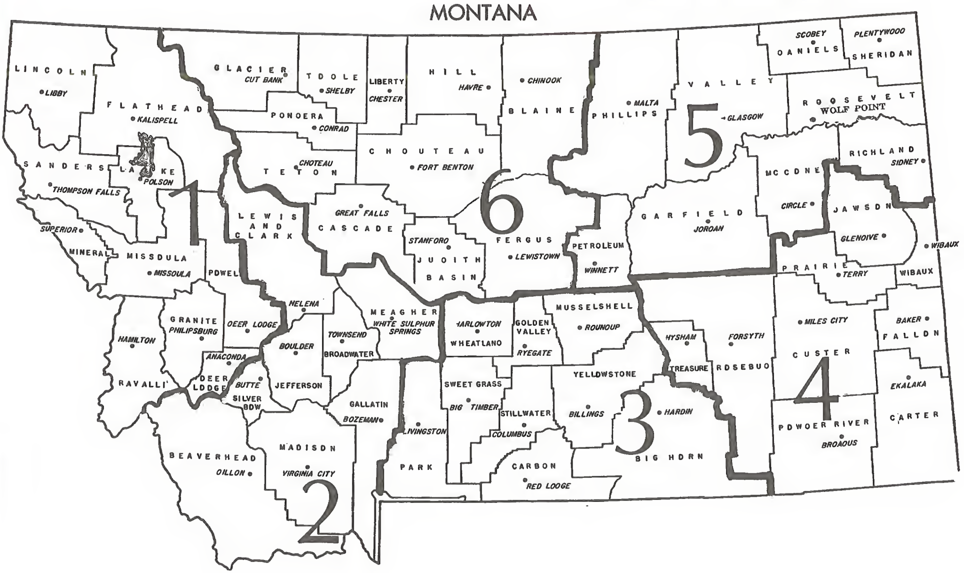
(11) Existing Patient Flow Pattern

Although the EMS capability in Montana varies considerably within the state, the following describes a typical (true) emergency situation in a moderately rural area and how the existing EMS system might react:

EXHIBIT XVI

Montana EMS Bureau

MONTANA CIVIL DEFENSE DISTRICTS



Source: Montana Civil Defense Agency.

- The system would be activated by a telephone call to one of the following:

  - Hospital
  - Local police
  - Fire/rescue
  - Ambulance service

  It should be noted that in most areas a single emergency number has not been established. In addition, roadside telephones are generally not available.

- An ambulance, as well as police and/or fire-rescue personnel if necessary, would be dispatched by telephone.

- After the ambulance has been dispatched, further communications with the vehicle would be conducted by the law enforcement agency using two-way radio equipment which employs 39.82 MHz.

- At the scene of the emergency, an ambulance attendant with Advanced American Red Cross training would provide necessary first aid. However, no direct communication between ambulance and hospital exists. Information must be relayed by telephone between the dispatcher and hospital, and relayed by radio between the dispatcher and ambulance.

- The patient would then be transported to the nearest hospital. The hospital may have been notified by the dispatcher upon request of the ambulance attendant. In most areas of the state, ambulance personnel will not by-pass the nearest hospital for one which is farther away but which may have greater capability to meet the needs of a specific patient. In addition, hospitals in the state have not been categorized according to their emergency capability.

- An ambulance trip report would be filled out while in route to the hospital.

- When the ambulance arrives at the hospital, it may or may not be met by a physician. In addition, a physician may or may not have been contacted prior to the patient's arrival. The ambulance trip report would be delivered with the patient.

- Depending on the extent of the patient's medical problem, the hospital may be lacking in certain specialized equipment or not have a physician on the medical staff with appropriate specialty training. Therefore, the patient may need to be transferred to another hospital after being stabilized.
- The original attending physician would designate the hospital to which the patient is to be transfered. Hospital-to-hospital communication would be by telephone.
- An ambulance would be dispatched to transfer the patient. Again, no direct radio communication exists between the ambulance and hospital. In addition, no standardized transfer form or procedures are available.

2. DESCRIPTION OF THE PROGRAM AREA

(1) Demographic Information

The following paragraphs describe the population of Montana. Population data by county is contained in Appendix B-9.

(1.1) Population Size, Distribution and Density

The settlement of eastern Montana generally followed the states two major river waterways, the Yellowstone and Missouri Rivers. Located along the banks of these rivers are numerous communities, including the two largest cities in Montana, Great Falls on the Missouri River and Billings on the Yellowstone River. The goldrush in the 1880's resulted in the rapid and comparatively dense settlement of the western portion of the state. As a result, population patterns in Montana are currently in the following two general forms:

- Long chains filling the wide valleys in the western portion of the state.
- The scattering of persons across the prairie in the eastern portion of the state, with greater concentration of persons in trade centers located along the major rivers.

The population of Montana in 1970 was 694,345 persons, ranking it about 44th among other states in terms of population. Exhibit XVII, following this page, shows the state's population by planning region and indicates the percent of rural population. The exhibit indicates that the state's population is relatively evenly distributed among the three regions, with about 230,000 persons in each region. The population of the state's 56 counties ranges from 675 persons in Petroleum County to 87,367 persons in Yellowstone County. The two other most populated counties in Montana are Cascade with 81,804 persons and Missoula with 58,265 persons. Only five counties exceed 30,000 persons each.

About 50% of the state's population live in rural areas, with the exception of Region 2, where about 40% of the population is rural. In comparison, about 26% of the population of the United States is rural.

EXHIBIT XVII

Montana EMS Bureau

URBAN AND RURAL POPULATION BY PLANNING REGION

1970

Planning Region	Total Population	Rural	Urban	Percent Rural
1	234,922	118,948	115,974	50.6
2	230,939	91,308	139,631	39.5
3	228,484	113,413	115,071	49.6
TOTAL	694,345	323,669	370,676	50.4
United States				26.5

Source: "Montana Data Book," Montana Department of Planning and Economic Development, 1970.

Montana has a population density of only 4.7 persons per square mile, compared to an average for the U.S. of 57 persons per square mile. As shown in Exhibit XVIII, following this page, the population density in Montana ranges from a low of 3.1 persons per square mile in Region 3 to 6.8 persons per square mile in Region 1. The population density in the state's 56 counties ranges from 0.4 persons per square mile in Garfield and Petroleum Counties to 58.6 persons per square mile in Silver Bow County.

In addition to the residents of Montana, many other persons visit the state which has important implications on EMS. Studies have indicated that almost 4 million persons visit Montana each year. This is more than 5.5 times the resident population.

Population projections by the Montana Information System Bureau indicates that the state's population is expected to increase by about 5.7% between 1970 and 1980, reaching 733,940 in 1980. The projected change in population between 1970 and 1980 by region, as shown in Exhibit XIX, following Exhibit XVIII, is as follows:

- The population of Region 1 is projected to increase by 14.1%.
- The population of Region 2 is projected to increase by 6.5%.
- The population of Region 3 is projected to decrease by 3.7%

EXHIBIT XVIII

Montana EMS Bureau

POPULATION DENSITY
BY PLANNING REGION
1970

Planning Region	Population	Area (Square Miles)	Population Density (Persons per Square Mile)
1	234,922	34,372	6.8
2	230,939	38,467	6.0
3	228,484	74,330	3.1
TOTAL	694,345	147,138	4.7
United States			5.7

Source: "Montana Data Book," Montana Department of Planning and Economic Development, 1970.

EXHIBIT XIX

Montana EMS Bureau

MONTANA POPULATION PROJECTIONS
1975 and 1980

Planning Region	1970	1975	1980	Percent Change 1970 versus 1980
1	234,922	250,557	267,980	14.1%
2	230,939	238,313	245,912	6.5%
3	228,484	224,938	220,048	(3.7%)
TOTAL	694,345	713,808	733,940	5.7%

Note: These population projections are based upon the assumption that the county 1960-1970 birth, death and migration rates remain constant through 1980.

Source: Information Services Bureau, Montana Dept. of Intergovernmental Relations, 1974.

It should be noted that these projections were based on population trends by county between 1960 and 1970, and do not reflect recent factors that may alter the projections. For example, the eastern portion of the state (Region 3) is expected to experience significant population growth due to the impact of coal in that area. However, Exhibit XIX indicates a projected 3.7% decline in population between 1970 and 1980.

(1.2) Race, Age And Sex Characteristics

About 95% of Montana's population is white, compared with a national average of 88%. Other racial groups in Montana and their percent of the state population include:

- American Indians - 3.9%
- Blacks - 0.3%
- Japanese - 0.1%
- Other - 0.2%

The median age in Montana is 27.2 years, compared to 28.3 years for the U.S. Exhibit XX, following this page, shows the population age distribution in Montana by planning region. Almost 10% of the state's population is 65 years of age or older, the same as for the U.S. The age categories with the largest number of persons are 25 through 45 years and 5 through 14 years, each representing about 22% of the state's population. The age category with

EXHIBIT XX

Montana EMS Bureau

POPULATION AGE DISTRIBUTION BY PLANNING REGION 1970

Planning Region		Population	Percent Of State Total	Population Age Distribution (Years)					
				Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+
1	Number	234,922	33.8%	19,358	49,849	40,609	51,782	49,005	24,319
	Percent of Regional Total			8.2	21.2	17.3	22.0	20.9	10.4
2	Number	230,939	33.3%	19,079	50,370	43,569	52,434	44,437	21,050
	Percent of Regional Total			8.3	21.8	18.9	22.7	19.2	9.1
3	Number	228,484	32.9%	18,607	50,647	37,678	50,639	47,547	23,366
	Percent of Regional Total			8.1	22.2	16.5	22.2	20.8	10.2
TOTAL	Number	694,345	100.0%	57,044	150,866	121,856	154,855	140,989	68,735
	Percent of State Total			8.2	21.7	17.5	22.3	20.3	9.9

Source: "Montana Data Book," Montana Departmentof Planning and Economic Development, 1970.

the least number of persons is the under 5 years category, which represents about 8% of the population. The age distributions of the populations of the three planning regions do not vary significantly from the state as a whole.

About 50% of the state's population is female, compared with a U. S. average of 51.3%. The population of each of the three regions is also about 50% female as shown in Exhibit XXI , following this page.

(1.3) Education And Income Characteristics

Of the persons 25 years old and over in Montana in 1970:

- The median number of school years completed was 12.3 compared with 12.1 for the U. S.
- 2.7% completed less than 5 years of school, compared with 5.5% for the U. S.
- 59.2% completed 4 years of high school or more, compared with 52.3% for the U. S.
- 11.0% completed 4 years of college or more, compared with 10.7% for the U. S.

The median family income in 1969 was $8,509 for Montana compared to $9,586 for the U. S. as a whole. The per capita money income in 1969 was $2,696 for Montana, compared to $3,119 for the U. S. About 10.4% of Montana's families were below

EXHIBIT XXI

Montana EMS Bureau

SEX DISTRIBUTION BY PLANNING REGIONS
1970

Planning Region		Male	Female	Total
1				
	Number	117,671	117,251	234,922
	Percent of Region Total	50.1%	49.9%	
2				
	Number	115,776	115,163	230,939
	Percent of Region Total	50.1%	49.9%	
3				
	Number	113,526	114,958	228,484
	Percent of Region Total	50.0%	50.0%	
	TOTAL NUMBER	346,973	347,372	694,345
	Percent of State Total	50.0%	50.0%	

Source: "Montana Data Book:, Montana Department of Planning and Economic Development, 1970.

the low income level in 1969 compared to 10.7% for the U.S.

(1.4) Mortality And Morbidity Statistics

In 1972, heart disease, which was responsible for about one-third of all 6,896 deaths in Montana, was the major cause of death. The death rate due to heart disease was 319.1 deaths per 100,000 in Montana compared to a rate of 361.3 deaths per 100,000 for the U.S. Cancer, stroke and accidents were the second, third and fourth leading causes of death, respectively, as shown in Exhibit XXII, following this page. Accidents were responsible for about 9.2% of all deaths in Montana in 1972.

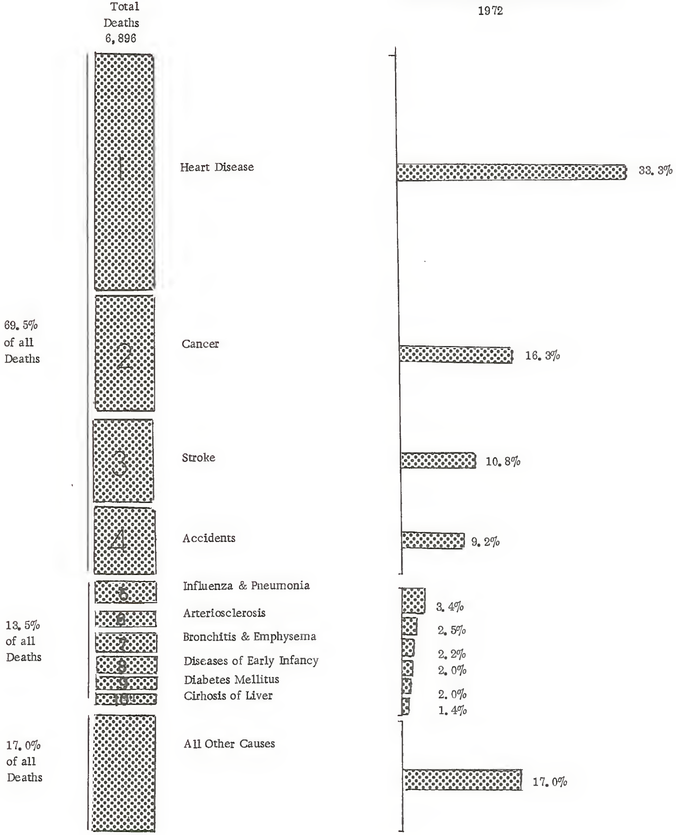
Exhibit XXIII, following Exhibit XXII, shows the mortality data by planning region for causes of death which may require an emergency response, such as accidents, suicide, homicide and heart attacks (ischemic heart disease). As can be seen by the exhibit, about 28% of all deaths in Montana in 1972, or 1,912 deaths fall into one of these four categories. In addition, the exhibit indicates that of the 1,912 persons who died:

- 716 persons, or 37%, were residents of Region 1
- 568 persons, or 30%, were residents of Region 2
- 628 persons, or 33%, were residents of Region 3.

EXHIBIT XXII

Montana EMS Bureau

MAJOR CAUSES OF DEATH IN MONTANA
1972



Source: National Center for Health Statistics, Bureau of Records and Statistics.

EXHIBIT XXIII

Montana EMS Bureau

SELECTED MORTALITY DATA BY OCCURANCE
1972

	Cause of Death Which May Require an Emergency Response						
	Accidents						
Planning Region	Total	Motor Vehicle	All Others	Suicide	Homicide	Heart Attack	Total
1	221	113	108	38	12	445	716
2	193	119	74	28	9	338	568
3	221	128	93	21	11	376	628
TOTAL	635	360	275	87	32	1,159	1,912
Percent of All Deaths	9.2%	5.2%	4.0%	1.3%	0.5%	16.8%	27.7%

Note: There were 6,896 deaths from all causes in Montana in 1972.

Source: National Center for Health Statistics, Bureau of Records and Statistics.

Accident, suicide, homicide and heart attack data by county are shown in Appendix B-10.

As indicated by Exhibit XXIV, following this page, Montana has historically had a high death rate from accidents. Although the death rate in Montana from all accidents has decreased since the 1940's, it has increased since 1960 and has been consistently greater than the accidental death rate for the U. S. In 1972, the death rate per 100,000 population was 88. 3 in Montana compared to 54. 6 for the nation. It should also be noted that almost 58% of all accidental deaths in Montana in 1972 occurred outside city limits and in towns of less than 1,000 population.

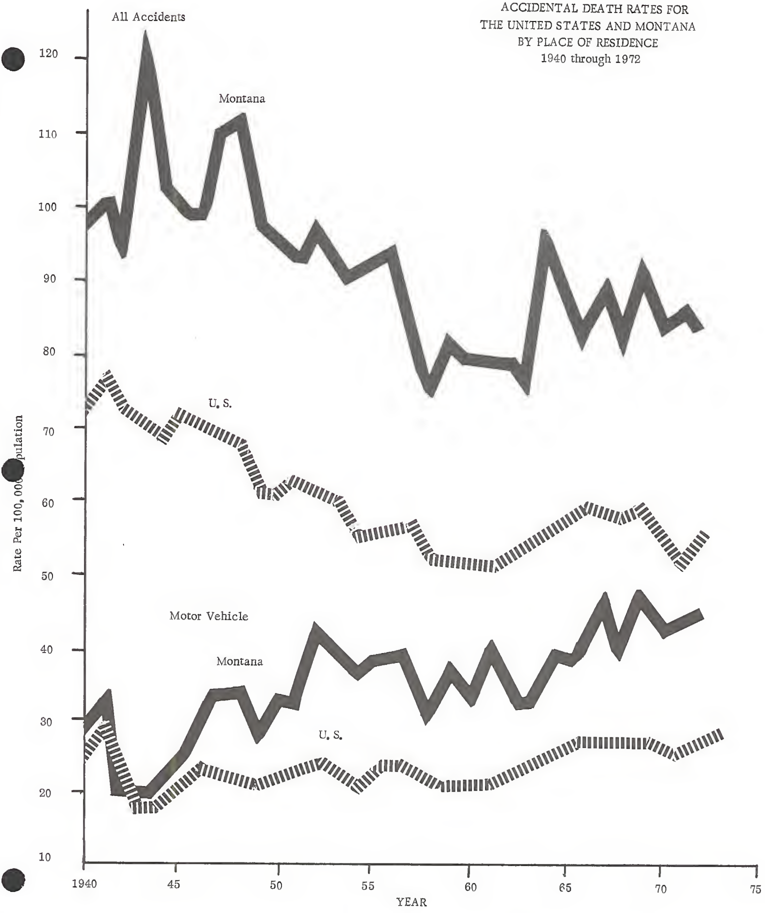
Deaths from motor vehicle accidents represented almost 57% of all accidental deaths in Montana in 1972, and resulted in the highest motor vehicle fatality rate ever recorded in Montana, 50. 1 deaths per 100,000 population. The motor vehicle fatality rate in the nation for 1972 was 27. 2 deaths per 100,000 population.

Exhibit XXV, following Exhibit XXIV, shows the three year average of vehicle accidents per county that have required EMS response. The accident totals were taken for the years 1971 through 1973. The exhibit indicates that:

EXHIBIT XXIV

Montana EMS Bureau

ACCIDENTAL DEATH RATES FOR THE UNITED STATES AND MONTANA BY PLACE OF RESIDENCE 1940 through 1972



Source: National Center for Health Statistics Bureau of Records and Statistics Montana rates for the years 1969 - 1972.

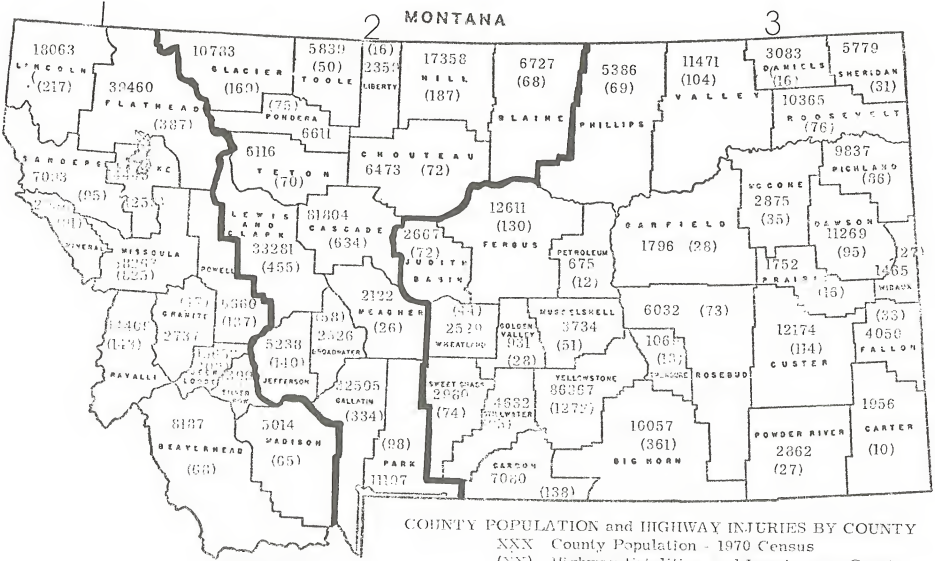
Note: U. S. rates for the years 1969-1972 are provisional.

EXHIBIT XXV

Montana EMS Bureau

THREE YEAR AVERAGE OF VEHICLE ACCIDENTS PER COUNTY THAT HAVE REQUIRED EMS RESPONSE

1971 through 1973



Silver Bow
Population 41031

COUNTY POPULATION and HIGHWAY INJURIES BY COUNTY

XXX County Population - 1970 Census
(XX) Highway Fatalities and Injuries per County

Region 1 - (2,829)
Region 2 - (2,452)
Region 3 - (3,130)

Source: Department of Intergovernmental Relations, Highway Traffic Safety Division.

- Of the 2,829 average vehicle accidents in Region 1, almost 30% occurred in Missoula County.

- Of the 2,452 average vehicle accidents in Region 2, almost 26% occurred in Cascade County.

- Of the 3,130 average vehicle accidents in Region 3, almost 41% occurred in Yellowstone County.

- The above three counties, which have about 33% of the state population, accounted for almost 33% of the three year vehicle accident average for the state.

Data for 1973 indicate that there was a 10% reduction from 1972 in accidental deaths from all causes. This can be attributed to a significant 19% reduction in motor vehicle related deaths between 1972 and 1973, while death from non-accidental causes increased by 4% for the same period. Accidental death data by county in Montana for 1973 are contained in Appendix B-11.

Exhibit XXVI, following this page, shows the number of deaths in Montana from ischemic heart disease (heart attack) for 1969 through 1973. As can be seen by the exhibit, almost 1,200 Montanans lose their lives as a result of this disorder each year. This yields a state death rate for acute ischemic heart disease of 170 deaths per 100,000 population. In 1972, the national death rate in this category was 171.9 deaths per 100,000. The exhibit also indicates that for ischemic heart disease:

- Region 1 had a five-year death rate of 199 per 100,000, the highest in the state for this cause.

EXHIBIT XXVI

Montana EMS Bureau

MONTANA RESIDENT DEATHS DUE TO ACUTE ISCHEMIC HEART DISEASE (1)

1969 through 1973

Planning Region	Deaths 1969	1970	1971	1972	1973	Total	1969-1973 Average	Average Rate Per 100, 000 Population (2)
1	455	438	513	445	493	2, 344	468. 8	199
2	332	367	350	338	308	1, 695	339. 2	146
3	377	381	375	376	371	1, 880	377. 0	165
TOTAL	1, 164	1, 186	1, 238	1, 159	1, 172	5, 919	1, 183. 8	170

(1) ICDA 8th Revision - Rubric 410

(2) In 1972, the national rate was 171. 9 deaths per 100, 000 population.

Source: Bureau of Records and Statistics

- Region 3 has a five-year death rate of 165 per 100,000.
- Region 2 has a five-year death rate of 146 per 100,000.
- Almost 6,000 persons died in Montana from this disease over the five-year period.

In addition, it should be noted that approximately 56% of the heart attack deaths in 1973 occurred in a medical facility while the remaining 44% occurred outside a medical facility. Ischemic heart disease data by county in Montana are contained in Appendix B-12.

(2) Area Characteristics

(2.1) Geographic Characteristics

The 147,138 square miles of land that consitute Montana is exceedingly diverse. The state lies along the eastern edge of the Rocky Mountains with the Continental Divide passing through its western region (Region 1). The Great Plains generally cover the eastern portion of the state (Region 3), interrupted occasionally by a few minor mountain ranges. The state's central region (Region 2) is more or less a combination of scattered mountain ranges and broad plains.

The mean elevation of Montana is approximately 3,400 feet, the lowest for the Rocky Mountain states, although considerable areas, especially in the western region, have elevations in excess of 5,000 feet. The highest elevation, 12,850 feet, is the summit of Granite Peak, in Park County, near the southcentral boundary. There are four peaks in excess of 12,000 feet, 13 in excess of 11,000 feet, and 48 in excess of 10,000 feet. The lowest elevation, 1,800 feet, occurs in Lincoln County in the northwest where the Kootenai River leaves the state.

Three geographic conditions, as noted below, directly affect the delivery of emergency health care in Montana:

- Mountain passes which can be difficult to traverse during certain months.
- Three major river systems which are natural barriers to travel.
- The great physical distance between populated areas.
- The mountainous regions which make telecommunications difficult.

(2.2) Climatic Conditions

Montana's summers are hot and dry, especially in the eastern part of the state. Temperatures of over 100°F occur in the lower elevations. Winters are usually cold with the average January temperature of 10.8°F for the northeastern region to 22.2°F in the upper Yellowstone Valley in the central part of the state.

Annual snowfall varies from quite heavy, about 300 inches, in some parts of the mountains in the western half of the state, to approximately 20 inches east of the Continental Divide. Most of the larger cities have annual snowfalls of 30 to 50 inches. Most snow falls during the November through March period, but heavy snowstorms can occur as early as mid-September or as late as May 1, in the higher western half of the state. In eastern Montana, early or late snowstorms are not very common. Heavy snowfalls can have a significant impact on the emergency transportation system.

(2.3) Roads

Montana has almost 78,000 miles of roads, 13,000 miles of which are classified as improved roads. Appendix B-1 shows road mileage by county. The following table summarizes the data in the appendix by planning region:

Region	Miles of Improved Roads	Total Road Miles
1	3,422	17,299
2	4,350	25,726
3	5,224	34,962
TOTAL	12,996	77,987

* * * * *

Chapter II provided information which is necessary for the design and successful implementation of an EMS system in Montana. The following chapter discusses the existing and proposed standards and regulations related to EMS in Montana.

III. EXISTING AND PROPOSED EMS STANDARDS IN MONTANA

III. EXISTING AND PROPOSED EMS STANDARDS IN MONTANA

This chapter describes the existing and proposed standards and regulations in Montana related to EMS. References are made to appropriate legislation discussed in Chapter I.

1. ORGANIZATION STANDARDS.

Existing and proposed standards or requirements relative to EMS organization in Montana are as follows:

- The existing and proposed requirements for the organization of the EMS Bureau are discussed in Chapter I.
- The existing requirements for the formation of a local EMS council include the following:
  - Its membership should be composed of the public safety agencies and organizations as well as hospital emergency department personnel who provide patient care during a medical emergency.
  - Leadership should be provided by a local physician.

  In addition, the local councils' activities should be coordinated with the regional EMS councils and state EMS Bureau. Each local EMS council should be designated by local government as the community's official advisory body for EMS. The role of local EMS councils was discussed in more detail in Chapter I. No additional standards for local EMS councils are proposed.

- The existing requirements for the organization of an ambulance service are dictated by the Ambulance Licensing Law discussed in Chapter I (R.C.M. Title 69, Sections 3601 and 3613). In addition, the ability of the community to maintain and replace the vehicle and related equipment is also required. No additional standards are proposed.

2. OPERATIONAL STANDARDS

Existing EMS operational standards relating to ambulances in Montana include the following:

- Regulations for the licensing of ambulances, discussed above and included in Appendix A-5, provide certain requirements which relate to the operation of ambulances, such as:

  - Two-way communication
  - Insurance
  - Maintenance
  - Records
  - Training
  - Equipment

  It should be noted that two trained persons (Advanced American Red Cross First Aid or its equivalent) are required on an ambulance call.

- R.C.M. 32-21, which is included in Appendix A-6, also regulates the operation of emergency vehicles, including ambulances. This law includes provision for:

  - Traffic right of way
  - Use of audible and visual warning devices
  - Operator's authority and responsibility

It should be noted that the ambulance personnel, in the absence of other medical personnel, are responsible for patient care at the scene of an emergency. Law enforcement personnel have jurisdiction over the entire scene.

- There is no requirement that an ambulance service provide 24-hour availability. No such requirement is needed at this time since all public ambulance services in Montana provide coverage 24 hours a day, 365 days a year.

Regulations regarding the operation of ambulances are reviewed periodically and changes or amendments are made to reflect the current needs of the EMS system. The EMS Bureau believes that the decision to bypass the nearest hospital and to proceed to a more appropriate facility, must be made as the result of consultation with a physician who is in communication with the trained ambulance attendant. The promulgated standard for this procedure should be satisfied by the Montana State Plan for the Improvement of Emergency Medical Services which under Montana law is a rule.

In addition, a similar standard should be incorporated into the EMS Plan which requires ambulance services and hospitals to provide, without prior inquiry as to ability to pay, necessary emergency medical services to all patients requiring such services. This practice is already followed by virtually all ambulance services and hospitals in the state. In addition, it should be noted that the EMS Bureau will require such documentation before any federal EMS financial assistance is offered to an ambulance service or hospital.

3. PERSONNEL TRAINING STANDARDS

Existing and proposed training standards for EMS personnel in Montana are as follows:

- As noted previously, the minimum requirements for drivers and attendants of ambulances in Montana is American Red Cross Advanced First Aid or its equivalent. Although this level of training is the minimum, many ambulance services have trained EMT's in accordance with the Department of Transportation's (D.O.T.) 81-hour ambulance course. Because of the current inability to provide EMT training to the more rural areas of the state, EMT-A training is not being proposed as a requirement for ambulance personnel. However, as noted later in this plan, EMT-A training for all ambulance personnel is one of the goals of the EMS program. In addition, it should be noted that two EMT-A's will be required for the operation of all new ambulances purchased partially or totally with D.H.E.W. or D.O.T. funds.

- Refresher training requirements for EMT's have been adopted as part of the EMT certification requirements. They require recertification every two years in accordance with the D.O.T. 20-hour guide for an EMT refresher training program.

- Legislation authorizing both Basic and Advanced EMT training in Montana and the acts allowed by Basic and Advanced EMT's has been introduced to the current session of the Montana Legislature. This act was discussed in Chapter I and included in Appendix A-8.

- The existing training standards for public safety personnel in Montana, such as highway patrolmen, police officers and firefighters, was discussed in Chapter II. It is proposed that the minimum training for all public safety personnel be American Red Cross Advanced First Aid and Emergency care.

- No standards exist for the in-service training of hospital emergency room personnel. As noted later in this plan, such standards should be developed.

- Personnel in the EMS program who have requirements to use the EMS communication radio system include EMT's dispatchers, and ambulance drivers. They are required by Federal Communications Commission (FCC) regulations to adhere to FCC standards. A manual that details the procedures according to law and according to good professional practice has been published by the Montana EMS Bureau. In addition, radio base station operations at hospitals must adhere to the procedures and record requirements of Parts 89.151 through 89.179 of the Federal Communications Commission's Rules and Regulations pertaining to the Public Safety Radio Service.

  These elements of radio communications training should be added to the EMT training program in Montana and to any public first aid or sub-EMT course where the successful trainee might come into contact with the EMS radio communication system. The standard APCO dispatching training manual should be reviewed in light of additional EMS responsibilities and any EMS dispatching deficiencies in the dispatchers training program should be corrected. Finally, a radio procedure training program must be prepared for and given to all hospital communications personnel who will be required to man the hospital base radio station. Guidance for radio procedure training programs is provided by Sections 2-080.0 through 2-17.0 of the FCC regulations which suggest proper and legal radio procedures and are included in the EMS Communications manual published by the EMS Bureau.

4. AMBULANCE SPECIFICATIONS

Basic vehicle design criteria pertaining primarily to the interior dimensions of the patient compartment are included in the Montana State

Ambulance Regulations discussed earlier and included in Appendix A-5. Due to economic unfeasibility in many rural areas, there are no current plans to change these requirements. However, all areas purchasing new vehicles are encouraged to comply with the General Services Administration KKK standards as required by the EMS Systems Act of 1973.

It should be noted that the Montana State Ambulance Licensing Law requires all ambulances to carry, as a minimum, the 1967 Essential Equipment List of the American College of Surgeons.

5. RESPONSE TIMES - AMBULANCE DISTRIBUTION STANDARDS

The standard for determining the adequacy of the location of ambulance services in Montana was that the response time for 95% of the requests for assistance within a region should be 30 minutes or less. As noted later in the plan, this requirement is currently being met throughout the state.

6. COMMUNICATIONS STANDARDS

A planning manual for Emergency Medical Services communications in Montana has been developed and published by the EMS Bureau. The standards and recommendations contained in that document have been coordinated with the Communication Division of the State Department of Administration; the Electronics Research Laboratory at Montana

State University and the Radio Frequency Coordinating Committee of the Associated Public Safety Communications Officers, Inc. (APCO). The recommendations are in accord with Part 89, Public Safety Radio Services, Subpart P of the Federal Communications Commission Rules and Regulations which addresses Special Emergency Radio Service.

The following paragraphs describe standards related to the various components of the EMS communications system in Montana:

(1) Frequency Allocation

To take full advantage of the substantial investment in existing two way mobile and fixed base radio equipment currently in use by Montana hospitals and ambulance services, UHF radio frequency allocations for the Montana EMS communications system should be standardized as discussed in Appendix G.

It should be noted that although the D.H.E.W. EMS Systems Program Guidelines indicate a preference for the use of UHF frequencies for EMS communications, UHF is not feasible in Montana at this time due to the following reasons:

- Almost 50% of the hospitals and 50% of the ambulances in Montana have recently installed VHF high band radio equipment, as noted in Chapter II. To complete this partially-completed communications system will require the purchase of additional VHF high band radio equipment.

It would be economically unfeasible at this time to install UHF equipment in all ambulances and hospitals throughout the state and abandon the existing VHF radio equipment.

- To implement a statewide UHF radio communications system, approximately one hundred repeater stations would be needed to ensure adequate propagation. The expense of such installations would be prohibitive for a dedicated (separate) EMS communications system and other state agencies are not prepared to switch to UHF at this time.
- A dedicated EMS communications system would be lightly loaded which would increase the chance of undetected system failures which become apparent when the system is fully utilized, such as in disaster situations.
- No adjacent state has planned or implemented a UHF medical communications system. Interstate coordination would be made much more difficult if Montana alone changes to UHF frequencies.

However, in anticipation of the implementation of an integrated statewide radio communication system, which is in its planning stage at this time, UHF frequency allocations for EMS communications should be established for Montana. Anticipated within the next decade, the integrated system, which is discussed in more detail in Appendix G, will provide significant solutions to radio range limitations and multipath problems common to omnidirectional UHF propagation in severely mountainous terrain.

(2) Designated Emergency Telephone Numbers

Montana has encouraged the installation of the national emergency three digit telephone number "911" as the EMS input telephone number. Guidelines for planning and implementing this telephone system are being prepared for distribution. As noted earlier, the implementation costs, technical problems and administrative difficulties have limited the installation of 911 to four locations in the state, while three more installations are planned over the next two years. The 911 system, while it will continue to be supported and encouraged by Mountain Bell and the Independent Telephone Association, is not the near term answer to a statewide emergency telephone number.

It is anticipated, as discussed in more detail in Appendix G, that statewide toll free WATS telephone numbers in the 800 exchange services will be a more economical and viable solution for use throughout the state's population distribution where telephone service is available. This WATS system will coexist with the 911 system until the 911 system expands to statewide proportions. The WATS line emergency telephone number has the advantage of having all necessary ingredients in place. It has the disadvantage of being, at the minimum, a ten digit number.

(3) Dispatcher-To-Ambulance Communications

The Operations Manual of the Montana EMS Communications Manual provides detailed standards of procedure and articulation for the EMS dispatcher. These standards are based upon standards developed for the training of public safety radio system dispatchers by the Associated Public Safety Communications Officers (APCO) as modified by local public safety radio practices. These are appropriate training and performance standards for Montana EMS radio dispatchers.

(4) Ambulance-To-Hospital Communication

The Operations Manual of the Montana EMS Communication Manual provides detailed standards of procedure and articulation for the communicators in hospital emergency rooms and the ambulances. These detailed standards are appropriately based upon many years of APCO experience in the use of public safety radio communications systems. Included in these standards are the procedural and articulation instructions for using a PHONE PATCH for connecting a physician using a telephone through to the ambulance vehicle by radio using the telephone/radio interconnection.

(5) Hospital-To-Hospital Communications

The incidence of hospital-to-hospital radio communications in Montana is not frequent. However, the Operations Manual of the Montana EMS Communication Manual provides detailed procedural and articulation standards for such operations.

7. HOSPITAL FACILITIES STANDARDS

The existing requirements for hospital emergency facilities are delineated in the state licensure requirements for hospitals, which include the requirement that hospitals provide 24 hour emergency capabilities. The EMS Bureau proposes that additional requirements for hospital emergency facilities include the classification of emergency departments based upon five capability designations. Appendix C provides a detailed description of the five classifications. Brief summaries of some of the major requirements of the classifications are noted below:

- Comprehensive Emergency Service - The hospital should be capable of providing prompt, complete and advanced medical care for all emergencies, including those requiring the most complex and specialized services. A physician should be physically present in the emergency department at all times, or available within fifteen minutes.
- Major Emergency Service - The hospital should be capable of providing prompt, complete and advanced medical care in all but one of the emergency medical specialties, including those requiring the most complex and specialized services. A physician should be physically present in the emergency department at all times, or available within fifteen minutes.
- General Emergency Service - The hospital should be capable of providing resuscitative and life-support care of persons critically ill or injured. The hospital would be lacking in more than one of the major emergency medical and surgical specialties. Specialty services should be available through prior arrangements with non-staff specialists and other hospitals. A physician should be available in the emergency department within fifteen minutes.
- Basic Emergency Service - The hospital should be capable of providing emergency resuscitative and life-support medical services. Transfer, when necessary, shall be under prior agreement with other hospitals. The emergency department should have a designated physician on-call from in-house or outside the hospital 24 hours a day. The department should be staffed by an R.N. or L.P.N. who should be on-call in-house 24 hours a day.

- First-Aid Station - The hospital should be capable of providing triage and immediate resuscitative care.

* * * * *

This chapter discussed the existing and proposed standards and regulations related to EMS in Montana. The next chapter, Chapter IV, identifies the objectives of Montana's EMS program.

IV. PROGRAM OBJECTIVES

IV. PROGRAM OBJECTIVES

This chapter first summarizes the deficiencies and needs in Montana's existing EMS system and then presents the objectives of the program. The program's broad, general and specific objectives are described as they apply to the 15 mandatory EMS components identified in the EMS Act. In addition to the objectives for the 15 mandatory components, objectives for four other EMS components are described. The Montana EMS Bureau believes that these additional components are necessary for a successful EMS system. The last section of the chapter identifies the EMS system components which have the highest priority in Montana.

1. EMS DEFICIENCIES AND NEEDS IN MONTANA

This section provides a discussion of Montana's EMS deficiencies and needs. In general, the determination of EMS deficiencies and needs was largely based upon a review of Montana's existing EMS resources and capabilities, described in Chapter II of this plan, in light of HEW's 15 mandatory EMS system components. In addition, several other sources were used to identify deficiencies and needs, including:

- Responses from a letter sent to Montana's 126 city and town governments, 56 county governments and 24 local EMS councils, which requested the identification of local EMS needs based upon the 15 mandatory EMS components. A copy of the letter and the responses are contained in Appendix D-1.

- Information generated from the annual inspection of ambulance services.
- Personal communications with individual providers of EMS at the local level.

Detailed information concerning the determination of deficiencies and needs for the training, communication and transportation components of the EMS system is contained in appendices to this plan. Training and transportation deficiencies and needs are discussed in Appendix D-2 and D-3, respectively. Beginning on page 43 of the communications appendix, Appendix G, is a detailed discussion of Montana's EMS communication needs.

(1) Manpower Deficiencies and Needs

Montana is deficient in both the number and distribution of properly trained EMS personnel. The deficiencies in most of the EMS manpower categories can be overcome through the continuation of existing training programs and the development of new ones, as discussed in the next section. However, other efforts, as identified by the EMS manpower program objectives, will be required to eliminate deficiencies in the following EMS manpower categories:

- The statewide regional and county ratios of physicians to population indicate both an overall shortage and maldistribution of physicians in Montana. The determination of the need for additional physicians should be refined and cooperative programs should be developed to attract physicians to the areas of greatest need.
- There is a need for many county governments to create the position of local EMS coordinator. A county EMS coordinator would work closely with the local EMS council and regional EMS coordinator to manage the local EMS system and ensure its integration into the regional EMS system.
- There is a need, as discussed in Chapter I, to expand the staff of the state EMS Bureau and enter into contractual agreements with physician consultants.

(2) Training Deficiencies and Needs

As noted in the previous section, most of the EMS manpower deficiencies which have been identified can be overcome by raising the level of training of existing EMS personnel. Therefore, there is a need to continue and improve existing training programs and develop new programs. Appendix D-2 contains an identification of EMS training needs by county and region in Montana. Deficiencies and needs in the following EMS training categories have been identified:

- The current level of training of ambulance attendants in Montana, as identified in Chapter II, indicates that there is a need to train about 770 existing ambulance attendants to EMT-A. In addition, there is a need to train approximately 420 additional EMT-A personnel in order to properly staff the volunteer ambulance services in Montana. Although Highway Traffic Safety Standard 11 indicates that 8 persons are needed to properly staff an ambulance service, volunteer services need 15 persons to provide coverage 24-hours per day, 7 days per week.

As identified in Appendix D-2 , EMT-A training is needed for approximately:

- 400 persons in Region 1
- 300 persons in Region 2
- 490 persons in Region 3.

. To ensure that EMT-A personnel maintain their skills, it is estimated that there will be a need to provide refresher training for approximately 1,700 EMT-A personnel over a four-year period. This estimate is based upon a two-year re-certification period. The estimated training needs by region include EMT-A refresher training for approximately:

- 600 persons in Region 1
- 450 persons in Region 2
- 650 persons in Region 3.

. There is a need to develop, in conjunction with the Board of Medical Examiners, a training program and certification requirements for Advanced EMT as provided for in Montana's House Bill Number 72. In addition, there is a need to develop a mechanism for providing Advanced EMT training.

. As noted previously, there is currently no minimum level of EMS training required for first responders, such as fire and law enforcement personnel. Therefore, there is a need to establish guidelines for the minimum level of EMS training for first responders and to develop a mechanism for providing the appropriate training.

- As noted in the communications appendix, Appendix G, it is anticipated that existing law enforcement dispatchers will be used for dispatching EMS vehicles. However, their training should be augmented by specific medical environment information to enable them to understand the nature of a medical emergency and the type of equipment and skill needed to stabilize the patient. Therefore, there is a need to add this training to the refresher training for law enforcement dispatchers.
- There is a need to provide radio procedures training to all EMS personnel who might come into contact with the EMS radio communications system, such as hospital emergency department personnel and EMT-A's.
- Continuing education programs in emergency care procedures are needed for emergency department personnel, including physicians and nurses.
- There is a need to continue and expand efforts in first aid training for the general public. In order to accomplish the first aid training objectives identified later in this chapter, additional first aid instructors and first aid instructor trainers will be needed. In addition, there is a need to increase the number of cardiopulmonary resuscitation instructor/trainers.

(3) Communications Deficiencies and Needs

The EMS communication resources identified in Chapter II and Appendix G, were put in place largely for reasons other than the implementation of a statewide EMS communications system.

Therefore, additions to these resources and expansion in their operation will be required to meet the objectives of a statewide EMS communications subsystem. As noted earlier, a detailed discussion of EMS communications deficiencies and needs is contained in the communications appendix, Appendix G. The following paragraphs briefly summarize the major deficiencies and needs of the various components of the EMS communications subsystem.

- To reduce the time between the detection of an emergency medical need and the arrival of an ambulance at the scene, there is a need for a single emergency telephone number, such as "911" or a limited number of telephone numbers, to be used to call for emergency services on a statewide basis.
- The dispersion of population in Montana has not encouraged the development of centralized multi-agency public safety dispatching centers over the past years. There is a need to expand the capability of existing and planned dispatch centers as well as develop additional dispatch centers so that centralized regional control of emergency service dispatching can be achieved.
- Due to the overcrowding of the current ambulance dispatching frequency (39.82MHz) with many diverse radio services, there is a need to implement another ambulance dispatching frequency.
- In order to provide and improve clinical communication between the EMT-A at the scene of an emergency and in transit and a physician, each licensed ambulance and general hospital in Montana should be equipped with an ambulance-to-hospital radio system. As noted earlier, less than 45% of the general hospitals and ambulance services in Montana are adequately equipped for

ambulance-to-hospital communications. In addition, no hospital in Montana has phone-patch provisions. The phone patch enables the hospital to reach an on-call physician or specialist by telephone and connect him through to the ambulance.

- Due to radio propagation requirements in Montana and restrictions of FCC Rules and Regulations against mobile repeaters, most hospital radio base stations will need to be located remote from the hospital. An engineering study of radio propagation coverage in Montana will need to be conducted to determine the locations of the base station antennas.

- The restrictions on radio range due to topographic conditions in Montana have discouraged the development of hospital-to-hospital radio communications. The current primary communication system between hospitals is by telephone. To provide radio communication between hospitals in times of disaster when the telephone system may be destroyed, would probably require emergency portable repeater stations put in place according to the immediate need.

- Montana is in need of a backbone statewide public safety, law enforcement, public health communications network that will provide a trunk line for all radio communication systems that require statewide coverage. Such an integrated communications system would enable the use of UHF frequencies for EMS communications. This integrated multiagency communication system has been proposed in Montana, as noted in Chapter III, but due to financial, administrative and jurisdictional problems, it is anticipated that such a system could not be implemented statewide for about ten years. It should be noted, however, that an integrated communication system is now being designed for a portion of Region 1, and should be implemented in the near future.

(4) Transportation Deficiencies and Needs

An analysis of Montana's existing transportation resources indicates that an adequate number of ambulances exist in Montana.

In addition, as shown by Exhibit XXVII, following this page, the existing ambulance services are adequately located to respond to more than 95% of requests for emergency assistance in each region within 30 minutes. The shaded areas in the exhibit are beyond the 30 minute response time of available ambulances. However, less than 5% of the population and less than 5% of the emergency requests are located in the shaded areas.

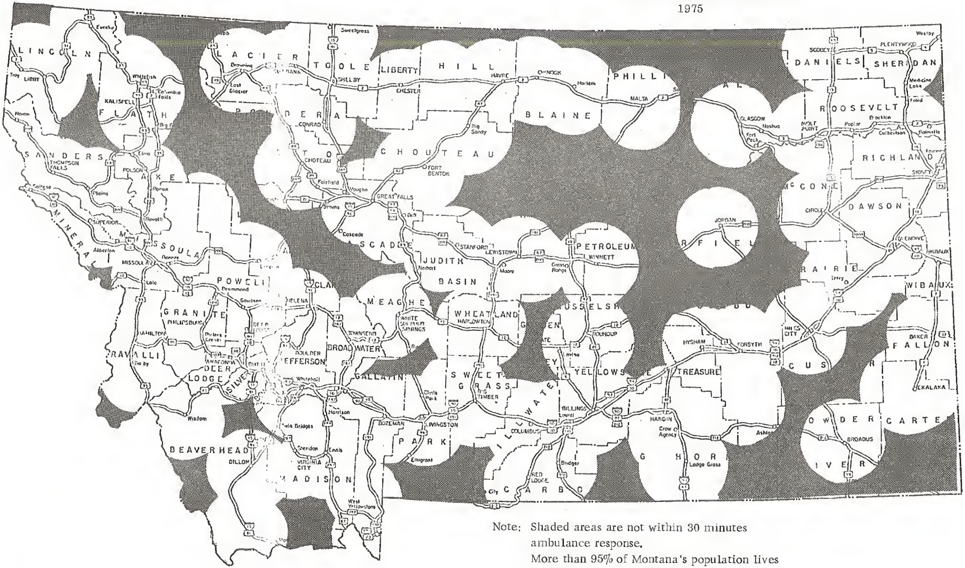
Although an adequate number of ambulances exist in Montana, only about 12% of them meet the state minimum design criteria. Due to the small population served by many ambulance services in Montana, and their infrequency of use, it would not be feasible to replace all the ambulances not meeting state minimum design criteria. Therefore, the following factors were considered in determining the priority for replacement of ambulance vehicles:

- The vehicles' level of departure from the state design criteria
- The age of the vehicle
- The volume of emergency runs for the ambulance service
- The location of the ambulance service in relation to other ambulance services
- The location of the nearest general hospital in relation to the ambulance service.

EXHIBIT XXVII

Montana EMS Bureau

RESPONSE TIME CAPABILITY OF MONTANA'S
EXISTING AMBULANCE SERVICES
1975



Note: Shaded areas are not within 30 minutes ambulance response.
More than 95% of Montana's population lives in the 30 minute response areas.

Source: Montana EMS Bureau

A more detailed description of the ambulance replacement criteria is contained in Appendix D-3. The appendix also indicates the communities that need new ambulances and when they should be purchased. It should be noted, that in addition to the indicated need for new ambulances based upon the ambulance replacement criteria, consideration was also given to needs identified by the local communities in their responses to the letter sent out by the EMS Bureau.

As shown in Appendix D-3, a total of 35 new ambulances are needed during the first two years of the EMS program, including:

- 10 ambulances for Region 1 (7 ambulances during the first year and 3 ambulances in the second year)
- 6 ambulances for Region 2 (4 ambulances in the first year and 2 in the second year)
- 19 ambulances for Region 3 (9 ambulances in the first year and 10 in the second year).

During the third and fourth year of implementation, an additional 35 new ambulances will be needed.

In addition to new ambulances, many ambulance services in Montana need various types of ambulance equipment, including extrication kits. Ambulance equipment needs by community are also noted in Appendix D-3.

There is also a need in Montana to evaluate the adequacy of existing air ambulance services and to develop a mechanism to ensure that adequate air transportation services, including helicopter and fixed wing, are available in the state. The need for improved water emergency transportation services should also be evaluated.

(5) Facilities Deficiencies and Needs

A preliminary determination of the emergency service capabilities of Montana's hospitals has been conducted, as noted in Chapter II. However, there is a need to refine this analysis and classify hospitals in the state according to the categories described in Chapter III. Upon completion of this detailed review, the need for upgrading selected hospital facilities can be determined.

(6) Deficiencies and Needs in Access to Critical Care Units

There is a need to provide to all physicians and hospitals in Montana information concerning the location and capabilities of specialized critical care units within Montana and nearby states. Specialized critical care units include:

- Neonatal units
- Intensive care and coronary care units

- Burn centers
- Spinal cord centers
- Detoxification centers
- Drug overdose centers
- Mental health units

This information will aid physicians in selecting the appropriate facility to which to transfer their patients. Information concerning the availability of appropriate transportation services should also be provided.

In addition, there is a need to develop clinical advisory groups to work with EMS programs to ensure that critical care services are utilized and interrelated across political boundaries.

(7) Deficiencies and Needs In The Utilization of Public Safety Agencies

There is a need for the EMS system to work with appropriate public safety agencies in Montana to ensure the following:

- The effective utilization of special equipment when responding to an emergency situation.
- The proper training of personnel in emergency care procedures.
- The development of linked communications.
- The development of cooperative operating procedures at the scene of an emergency or in disaster situations.

(8) Consumer Participation Deficiencies and Needs

Some consumer participation in policy making for the EMS system already exists through representation on local EMS councils and CHP agencies. However, there is a need to expand consumer participation in Montana's EMS system.

(9) Deficiencies and Needs In Accessibility to Care

As noted in Chapter III, virtually all ambulances and hospitals in Montana do not require evidence of ability to pay prior to the provision of services to the true emergent patient. There is, however, a need to ensure that the EMS system continues to operate on this basis.

(10) Deficiencies and Needs In The Transfer of Patients for Followup Care and Rehabilitation

In order to ensure continuum of care for emergency patients, there is a need for the EMS system to make adequate provisions for the transfer of patients to facilities that offer followup care and rehabilitation.

(11) Standardized Medical Record Keeping Deficiencies and Needs

There is a need to improve and expand the existing standardized medical record keeping system identified in Chapter II.

The proposed standardized medical record keeping system, which is described more fully in Chapter V, is the basic element of the EMS evaluation system and should include:

- Ambulance trip report forms
- Emergency department encounter forms
- Patient transfer forms.

(12) Deficiencies and Needs In Consumer Information and Education

There is a need to expand and improve existing programs in EMS consumer information and education. Public information and education programs should describe:

- What an EMS system is
- How to access it
- How to use it properly.

In addition, information should be provided concerning first-aid and medical self-help procedures and the availability of first-aid training programs in the area.

(13) Evaluation Deficiencies and Needs

The development and implementation of a statewide EMS evaluation system is needed in Montana. The system should provide for periodic, comprehensive and independent review and evaluation of the extent and quality of the emergency health care services provided within each EMS region.

(14) Deficiencies and Needs In Disaster Linkages

The EMS system must be capable of providing emergency medical services during mass casualties, national disaster and national emergencies. There is a need to ensure that the EMS system is linked to the local, regional and state disaster plans of Civil Defense and that it participates in exercises to test disaster plans.

(15) Mutual Aid Agreement Deficiencies and Needs

There is a need to update existing mutual aid agreements between local governments and neighboring states to ensure the provision of EMS on a reciprocal basis where access to such services would be more appropriate and effective.

(16) Continued Planning Deficiencies and Needs

The development of the EMS system plan for Montana is not the end of the planning process. There is a need to provide for continued EMS planning to update and improve the EMS system as necessary.

(17) Organization and Management Deficiencies and Needs

As noted in Chapter I, there is a need to expand the staff of the EMS Bureau in order to ensure that the organization is adequate at all levels to implement and manage the statewide EMS system. It should be noted, that contractual arrangements and consultants should be used wherever practical to minimize the ongoing administrative costs.

(18) Deficiencies and Needs In Relationship to Other Health Care Delivery Systems

There is a need to ensure that the EMS planning processes continue to be coordinated with planning for other health care delivery systems.

(19) Deficiencies and Needs in Standards and Legislation

The need for additional EMS standards and legislation was presented in Chapter III. In general, there is a need for the EMS Bureau to ensure that standards and legislation pertaining to EMS in Montana are adequate to meet the objectives of the program.

2. PROGRAM OBJECTIVES OF MONTANA'S STATEWIDE REGIONAL EMS SYSTEM

This section describes the broad, general and specific objectives of Montana's EMS program. The broad objective describes what the program will generally achieve. The general and specific objectives are related to HEW's 15 mandatory EMS components and several other components which are necessary for a successful EMS system.

(1) Broad Objective of Montana's Statewide EMS System

The broad objective of Montana's EMS system is to reduce death and disability resulting from medical emergencies and to ensure that citizens and visitors in Montana have rapid and easy access to effective, efficient and acceptable emergency medical services when they need those services.

(2) General and Specific Objectives of Montana's Statewide EMS System

The following general and specific objectives concern the various components of Montana's EMS system. It should be noted that the specific objectives are generally related to a four year program implementation period.

(2.1) Manpower Objectives

The general objective of the EMS manpower component is to ensure that sufficient numbers of EMS personnel, with appropriate training and experience, are available within and throughout each of Montana's EMS regions to provide emergency medical services on a 24-hour basis.

The following specific EMS manpower objectives have been established to help meet the general objective:

- Determine, by the eleventh month of program implementation, the staffing needs of the medical facilities within each regional EMS system necessary to meet the proposed categorization levels described in Chapter III.
- Encourage the CHP "b" agencies or other health planning organizations, and local medical societies to develop, by the end of the first year of implementation, coordinated programs to attract the necessary EMS personnel to the areas of greatest need.
- Develop, by the end of the sixth month of implementation, a mechanism for assisting ambulance services in recruiting sufficient numbers of EMT's.
- Encourage the creation, by the end of the first year of implementation, of paid EMS personnel within county governments to manage local EMS systems.

In addition, it should be noted that the EMS training objectives discussed below are also closely related to the EMS manpower general objective.

(2.2) Training Objectives

The general objective for EMS training is to provide, for all appropriate personnel, training that will enable them to perform effectively their various functions within the EMS system.

In order to meet the EMS training objective and the manpower objective, the following specific objectives have been established:

- Assure that at least 80% of all ambulance attendants in each region of Montana will be EMT-A trained by the end of the fourth year of program implementation. To achieve this objective, approximately 260 new EMT-A's should be trained each year, which will require about 20 courses annually.
- Assure that EMT-A refresher training courses are provided throughout each region of Montana, to re-certify existing EMT-A's every two years. The following numbers of EMT-A's should receive refresher training during the four year implementation period:
    - 1st year : 200 EMT-A's
    - 2nd year : 300 EMT-A's
    - 3rd year : 500 EMT-A's
    - 4th year : 700 EMT-A's
- Assure, by the end of the fourth year of implementation, that at least 80% of all EMS dispatchers within each region of Montana will be trained to a level of American National Red Cross (ANRC) Advanced First Aid and Emergency Care, or its equivalent.

- Assure that adequate guidelines are established, by the sixth month of implementation, for the minimum level of training for first responders and develop, by the end of the first year, a mechanism to accomplish the requisite training within each region.
- Initiate Advanced EMT training by the end of the first year of implementation.
- Assure that appropriate EMS personnel in each region are provided the necessary communications training by the end of the second year of implementation.
- Assure, by the end of the fourth year of implementation, that approximately 20 persons per 1,000 population are trained to the level of ANRC Standard First Aid and about 10 persons per 1,000 are trained to the level of ANRC Advanced First Aid and Emergency Care. To achieve this objective, during each of the four years of implementation, approximately 3,600 persons in Montana should receive Standard First Aid training and about 1,800 persons should receive Advanced First Aid and Emergency Care training.
- Assure that continuing education programs in emergency medical care are provided for emergency department personnel at all hospitals in Montana by the fourth year of program implementation. To achieve this objective, programs should be started at approximately 15 hospitals per year during the four year implementation period.
- Assure that approximately 100 persons are trained as American Heart Association instructor trainers in cardiopulmonary resuscitation during the first two years of implementation.

(2.3) Communication Objectives

The general objectives of the EMS communication subsystem are that the system provide:

- For easily remembered, rapid access to the EMS system, either via phone or other link as yet unspecified, that will permit prompt and efficient response to any incident requiring emergency medical services in Montana.
- An integrated and coordinated statewide emergency communications network that will link the emergency delivery units of medical services with those of other public safety services for prompt and coordinated response to any given emergency incident.
- A coordinated statewide emergency medical communications network that will permit specialized clinical skills to be made available at the scene of an incident through communication between the trained EMT at the site and a licensed specialist anywhere in Montana.

To meet the general objective for rapid citizen access, the following specific objectives must be attained:

- Toll-free emergency telephone service must be provided from any point in Montana to a regional emergency communications center manned by qualified emergency dispatchers. Waiting and querying times must be minimized to avoid frustrating the caller, who will in all likelihood be under a great deal of stress.
- Emergency dispatching personnel either at the communications center or at local dispatching facilities must be trained to accept and dispatch emergency medical services. This training must include:
    - Procedures for eliciting the necessary information from the caller.
    - The location of available resources to be dispatched to the scene of the incident.
    - Steps required to get those resources dispatched.

- Appropriate interconnections between dispatch centers and existing and planned 911 emergency centers must be provided to ensure adequate coordination among all emergency services.
- Public information programs must be established to educate the public in the proper procedures and telephone numbers to be used for all emergencies, whether 911 or toll-free WATS numbers. All telephones in the state must be placarded with the appropriate emergency numbers.

To meet the general objective for proper public safety coordination to provide prompt coordinated response to emergencies, the following specific objectives must be met:

- Ambulance personnel must be educated in the proper use of the EMS dispatching and clinical radio frequencies.
- Procedures for dispatching (either directly or through local dispatchers) law enforcement, ambulance services, fire and rescue squads and wreckers from a single telephone input must be established. It should be noted that although incoming calls within a region would come to the regional communications center, depending on the location of the emergency, the appropriate service would be dispatched from either one of the local dispatch centers in the state, such as existing law enforcement dispatch facilities, or the communications center.
- Procedures must be established and hospital communications personnel must be trained in the use of public safety telecommunications systems to support the delivery of emergency medical services.
- The emergency medical communications system must be included in civil defense planning for statewide disaster and emergency actions.

To provide a statewide emergency medical services network that will permit communications between personnel with specialized clinical skills usually found in hospitals and the EMT at the site of the emergency, the following specific objectives must be met:

- Two-way ambulance-to-hospital direct communications must be provided for hospitals in Montana.
- Phone patch facilities at all hospital base stations to enable a physician to talk directly with the EMT through a telephone-to-radio link must be provided.
- Capability for making patches to permit the EMT to communicate with distant hospitals if the nearest hospital lacks the clinical skills necessary to deal with a particular emergency must be provided.
- A field communications capability must be established by providing hand-held portable two-way radios to enable the EMT to communicate with the hospital through the ambulance vehicle radio.

Several of the above objectives are related to other EMS system components, such as training and disaster planning. In general, the time frame for meeting the communication objectives is within the next two years. However, certain components, such as regionalized central dispatching, will require more detailed engineering prior to implementation. As noted later, most of the necessary communications equipment should be purchased during the first year of implementation.

(2.4) Transportation Objectives

The general objective of Montana's EMS system related to transportation is to ensure that an adequate number of necessary air, ground and water vehicles are available, manned and equipped to promptly transport patients to appropriate medical facilities and provide life-supporting treatment at the scene of the incident and enroute.

The following specific objectives have been established to ensure that the objective of the EMS transportation subsystem is met:

- Assure that at least 65% of the current number of ground ambulances in each region of Montana will meet or exceed the state minimum design criteria by the end of the fourth year of implementation. The following numbers of fully equipped ground ambulances, that meet the design standards specified by the EMS Act, should be purchased during the four year implementation period:

  - 1st year: 20 ambulances
  - 2nd year: 15 ambulances
  - 3rd year: 14 ambulances
  - 4th year: 21 ambulances

  A detailed breakdown by region and county for the first two years is contained in Appendix D-3.

- Assure that all public ambulance services in Montana have appropriate equipment, including extrication kits, by the end of the first year of implementation. A detailed breakdown of equipment needs by region and county is contained in Appendix D-3.

- Assure, by the end of the third year of implementation, that all ambulances in Montana provide the same quality service to emergency patients as is required of ground ambulances.

- Develop, by the end of the first year of implementation, a mechanism for ensuring that adequate water transportation services are available where needed in Montana.

(2.5) Facilities Objectives

The general objectives of the facilities components of Montana's EMS system are:

- To ensure that a sufficient number of emergency medical facilities, which have been categorized according to their emergency capabilities, exist within each region to be available to 95% of the region's population within sixty minutes travel time from the scene of the emergency.
- To ensure that each region has at least one hospital with a physician on duty in the emergency department 24-hours a day and that the hospital has a written working agreement with other hospitals offering greater emergency capabilities.

To meet the objectives of the facilities component of the EMS system, the following specific objectives must be met:

- Assure that all hospitals in Montana are classified according to their emergency care capabilities by the ninth month of program implementation.
- Assure, by the end of the second year of implementation, that hospital facilities within each region are adequate for the emergency medical care needs of the area.
- Assure, by the end of the first year of implementation that appropriate hospitals in Montana have written working agreements with other hospitals offering greater emergency capabilities.

(2.6) Objectives For Access To Critical Care Units

The general objective concerning access to critical care units is that the EMS system provide access to critical care units, including neonatal units, intensive care and coronary care units, burn centers, spinal cord centers, detoxification units and acute psychiatric units for all patients needing such services.

To meet the objective for providing access to critical care units, the EMS Bureau will provide to all physicians and hospitals in Montana, during the first year of implementation, information concerning:

- The location and capability of specialized critical care units in Montana and in nearby states.
- Preferred transfer procedures
- Appropriate transportation services.

(2.7) Objectives For the Effective Utilization of Public Safety Agencies

The general objective concerning the utilization of public safety agencies is that the EMS system provide for the effective utilization of the appropriate personnel, facilities and equipment of each public safety agency providing emergency services in a local EMS system area.

To meet the above objective, the following specific objectives have been established:

- Assure, during the first year of implementation, that appropriate public safety agencies continue to be included in the organization structure of existing and future local EMS councils.
- Assure, during the first year of implementation, that public safety representatives are included in the organization structure of regional EMS councils.

- Coordinate with public safety agencies, especially law enforcement agencies, in the development of regionalized central communications centers as outlined in Appendix G.

(2.8) Objectives For Consumer Participation

Montana's EMS program should ensure that each regional and local EMS system is organized in such a way as to provide, to consumers with no professional training or financial interest in the provision of health care, adequate opportunity for participation in policy making.

To meet the objective for consumer participation, the following specific objectives must be met:

- During the first year of implementation, include in the bylaws of all local and regional EMS councils articles which will provide for consumers to serve on the councils.
- Ensure that CHP "a" and "b" agencies or other health planning organizations, continue to have input in EMS planning.

(2.9) Accessibility to Care Objectives

Montana's EMS program should ensure that all patients requiring emergency services within the state will be treated without prior inquiry as to ability to pay.

To meet this objective, the EMS Bureau should obtain during the first year of implementation, written assurances from each hospital and ambulance service, that necessary emergency medical services will be provided to all emergency patients without prior inquiry as to ability to pay. This should be a condition for federal or state funding of regional and local EMS systems.

(2.10) Objectives For the Transfer Of Patients For Follow-Up Care and Rehabilitation

Montana's EMS program should ensure that local and regional EMS systems are coordinated to provide for the transfer of patients to facilities and programs which offer follow-up care and rehabilitation.

To meet the above objective, information will be provided to all physicians and hospitals by the end of the first year of implementation, concerning the location and capability of appropriate follow-up care and rehabilitation services within Montana and in nearby states.

(2.11) Standardized Medical Record-Keeping Objectives

The general objective of the EMS system concerning medical record-keeping is to implement standardized medical record-keeping which covers the treatment of the patient from initial entry into system through his discharge from it.

To meet the objective for implementing standarized medical record-keeping for the EMS system, the following specific objectives have been established for the first year of program implementation:

- Design and implement a new uniform ambulance trip report form
- Design and implement a uniform emergency department patient encounter form
- Design and implement a patient transfer form.

(2.12) Objectives For Consumer Information and Education

Montana's EMS system should ensure that the potential users of the system have awareness and knowledge necessary for obtaining, using and/or rendering emergency medical services.

To meet the objective for consumer information and education, the following specific objectives have been established:

- By the end of the sixth month of implementation, develop and distribute public information packets to local EMS councils. The packets will include:
  - Guidelines for educating and informing the public as to the means of obtaining emergency medical services.
  - Methods for disseminating information on appropriate first aid and medical self-help procedures.

  - Methods of disseminating information regarding availability of first aid training programs in the area.

- Promote, by the middle of the second year of implementation, the posting of the emergency telephone number for each region on public and private telephones.

- Expand the existing statewide public information program during the first year of implementation.

(2.13) Evaluation Objectives

The general objective for evaluating Montana's EMS system is to establish a method by which the extent and quality of a region's EMS system may be periodically reviewed and evaluated.

To meet the evaluation objective, the following specific objectives must be met:

- Develop and distribute, during the four year implementation period, quarterly performance reports for HEW and other appropriate organizations.

- Design and fully implement, by the middle of the second year of program implementation, a system for the evaluation of ambulance services.

- Design and fully implement, by the middle of the second year of program implementation, a system for the evaluation of hospital emergency departments.

- Design a system for the evaluation of patient transfer procedures during the fourth quarter of implementation, and implement the system during the second year of implementation.

- Design and implement a system for evaluating the impact of the EMS system on patient outcomes by the end of the second year of program implementation.

(2.14) Disaster Planning Objectives

Montana's EMS program must ensure that the EMS system will be capable of providing emergency medical services within each region during mass casualties, natural disasters, or national emergencies.

To meet the objective for disaster planning, the following specific objectives have been established:

- Ensure that contractual agreements with communities receiving federal and state funds require that:
    - Standard operating procedures be developed for the delivery of EMS during disasters.
    - These procedures be integrated and coordinated with existing local, regional and state Civil Defense disaster plans.
- Ensure that each disaster plan is tested at least once before completion of the grant period and that necessary revisions in the plan are accomplished.

(2.15) Mutual Aid Objectives

The general objective of the state's EMS system concerning mutual aid is that emergency medical services be provided among contiguous systems on a reciprocal basis where access to such services would be more appropriate and effective in terms of services available, time and distance.

To meet this objective, the EMS Bureau will ensure, during the first year of implementation, that the contractual agreements with local governments have provisions requiring existing mutual aid agreements with other counties or states to be updated as appropriate.

(2.16) Planning Objectives

Montana's EMS program should ensure the adequacy and continuity of continued EMS planning throughout the state.

To meet this planning objective, the following specific objectives must be met during the first year of program implementation:

- Incorporate the findings of the evaluation component of the EMS system into continued EMS planning.
- Develop regional councils as ad hoc committees to the EMS Bureau's proposed regional coordinators and incorporate the regional councils' recommendations in the ongoing EMS planning process.
- Incorporate the recommendations of the State EMS Advisory Council into ongoing EMS planning.

- Provide technical planning assistance to local EMS councils and providers of EMS.

(2.17) Organization and Management Objectives

The general organization and management objective of the EMS program is to ensure that organization is adequate at all levels, including state, regional and local, for the orderly development and implementation of comprehensive EMS systems statewide.

To meet the organization and management objective, the following specific objectives have been established:

- Hire, by the end of the second month of implementation, the following state EMS personnel:
  - Three regional coordinators
  - Three secretaries for regional coordinators
  - One advanced EMT coordinator for the headquarters office
  - One secretary for the headquarters office
  - One part-time physician
  - One accounting clerk.
- Enter into contractual agreements with selected physician consultants during the first year of implementation.
- During the first year of implementation, enter into contractual agreements with the other agencies and organizations necessary to implement the EMS program as discussed in Chapter V.

(2.18) Objectives Concerning Relationship To Other Health Care Delivery Systems

Montana's EMS program should ensure that the local, regional and state EMS planning processes are coordinated and integrated with other health care delivery systems.

To insure the coordination and integration of EMS with other health delivery systems, local and regional EMS council representatives should meet with local and state CHP agencies, during the first year of implementation, to review EMS plans. In addition, the Critical Care Coordinator should meet with local medical societies.

(2.19) Objectives For The Development of Standards And Legislation

The state's EMS program should ensure that standards and legislation are developed as needed to enable the implementation of subsystems which are necessary to the orderly development of comprehensive EMS systems.

The following specific program objectives concerning standards and legislation have been identified:

- Work with the Board of Medical Examiners in developing training and certification standards for Advanced EMT training.

- Develop rules and regulations for the distribution of state funds for EMS if Senate Bill 73 (discussed in Chapter II) becomes law.
- Evaluate the need for additional standards and legislation to improve the state EMS system as the program develops.

3. EMS PROGRAM OBJECTIVE PRIORITY

The objectives of Montana's EMS plan which can demonstrate the greatest impact upon improved patient care must be given the highest priority. Given Montana's present EMS capabilities, the system components which will have the greatest impact on improved patient care are those which will improve patient access to the system, improve pre-hospital patient care and ensure that the patient is moved rapidly through the system to obtain essential services, including specialty critical care services. Therefore, the objectives for the following EMS system components will have the highest priority for implementation:

- Communications
- Transportation
- Training
- Access to critical care units
- Facilities

The objectives for several additional system components are closely related to the five components noted above. Therefore, as the above five components are improved, they will simultaneously enhance and improve the following EMS system components:

- Manpower
- Transfer of patients for follow-up care and rehabilitation
- Consumer information and education.

* * * * *

This chapter identified the deficiencies and needs in Montana's existing EMS system, and presented the objectives of the state's EMS program. The following chapter discusses program implementation.

V. PROGRAM IMPLEMENTATION

V. PROGRAM IMPLEMENTATION

This chapter describes the implementation of Montana's EMS system. The chapter is organized into three major sections. The first section presents a description of the projected capability of the EMS system once it has been fully implemented. The second section describes the approach that will be used to implement the various system components. The third section describes the present and anticipated involvement of various organizations and agencies in the implementation and operation of the EMS system.

1. DESCRIPTION OF THE PROJECTED CAPABILITY OF MONTANA'S STATEWIDE REGIONAL EMS SYSTEM

This section describes the projected capability of Montana's statewide regional EMS system once it has been fully implemented. The response and interaction of the various system components are identified. Variations are noted in the response of the system for several clinical critical patient groups.

(1) Description Of The General Response Capability Of the Proposed EMS System

The following describes the response of the proposed EMS system to a generalized medical emergency:

- The system would be accessed by a telephone call to the regional emergency medical communications center in either Billings, Great Falls, or Missoula. The telephone from which the call was placed would have been placarded with one of the three regional toll-free WATS emergency numbers or the 911 emergency telephone number.

- The specially trained EMS dispatcher would collect pertinent information concerning the medical emergency, including the nature of the emergency and the location within the region. Depending on the location of the emergency, the regional communications center would either dispatch the ambulance directly or use the existing 24-hour local dispatch facility, as noted below:

  - If the emergency is within the local area of the regional communications center, then the nearest ambulance would be dispatched directly from the center by radio or telephone.

  - If the emergency is not within the regional communications center's local area, then the communications center would call the appropriate 24-hour local dispatcher, probably one of the current law enforcement dispatchers, and the ambulance would be dispatched according to the normal procedures currently being followed.

  Other appropriate personnel and equipment, such as police and fire/rescue, would also be dispatched as necessary. In addition, the appropriate hospital emergency department would be notified of the initiation of the ambulance response.

- Two trained EMT-A's would respond with the ambulance to the scene while maintaining two-way radio contact with the dispatcher.

- At the scene of the emergency, basic first aid may have been provided by a lay person with training in first aid procedures. If law enforcement personnel or other first responders reach the scene prior to the ambulance, they would administer first aid care to the patient.

- When the ambulance arrives at the scene the EMT-A would provide necessary medical care and prepare the patient for transport. The EMT-A would be in radio contact with a physician either at the hospital or via telephone patch through the hospital. Depending on the patient's condition, and the capability of the nearest hospital, the physician may instruct the EMT-A to transport the patient to other than the nearest hospital. However, in most cases, the patient would be transported to the nearest hospital.

- While transporting the patient to the hospital the EMT-A would communicate the patient's vital signs and general condition to the physician The physician may instruct the EMT-A to provide additional medical care if necessary. Patient information would be recorded on the standardized trip report form.

- The hospital to which the patient is being transported would have been notified by the ambulance attendant as to the number and condition of patients and the expected time of arrival.

- Upon arrival at the hospital, the ambulance would be met by a physician. (In most cases it would be the physician who had been in contact with the EMT-A). A copy of the trip report would be given to the physician and it would become part of the patient's permanent record. The EMT-A's would accompany the patient into the hospital providing continuity of care.

- The patient would be stabilized in the emergency department and his condition would be evaluated. If the hospital was capable of providing the necessary medical services to care for the patient, it would not be necessary to transfer the patient to another facility. If the hospital does not have the capability to provide the necessary medical services, then the patient would need to be transferred to another facility.

- In general, the attending physician would decide if and when the patient is to be transferred. As noted in the previous chapter, a patient transfer manual would be provided for the physician. The manual would be organized by EMS region and would indicate the specialty care capabilities of other hospitals in Montana and in nearby states. The manual would provide the physician with the necessary information for determining the most appropriate facility to which the patient should be transferred as well as the most appropriate method of transportation.

- Prior to the transfer of the patient, the facility to which the patient is to be transferred would be notified by telephone or radio and proper transfer arrangements would be made. All pertinent medical records, including the trip report form, emergency department encounter form and transfer form would accompany the patient. If necessary, the attending physician would also accompany the patient.

- Depending on the patient's condition and the location of the referral hospital, a ground or air ambulance may be used for the transfer.

- Radio contact between the ambulance and referral hospital would be established. Specialty physicians at the referral center would be available to the EMT-A or attending physician for consultation by radio during the transfer period.

- Upon arrival at the referral hospital, the patient would be met by the necessary physician specialists. A complete set of the patient's standardized medical records would be available. Following evaluation, the patient would receive the necessary medical care.

- Following the patient's medical treatment and initial rehabilitation, it may be decided that the patient should be referred to another facility for followup care and rehabilitation. Again, the physician would refer to the patient transfer manual for determination of the most appropriate facility and method of transportation for the referral. The remaining steps for the referral are similar to those required for the initial transfer.

(2) Description of The Response of The Proposed EMS System For Several Critical Patient Groups

The following describes, for several clinical critical patient groups, variations in the general response of the proposed EMS system:

- Accident Victims - Depending on the condition of an accident victim, intensive care unit services may be required. As noted in Chapter II, about 75% of the acute general hospitals in Montana have intensive care/coronary care units. However, the three trauma centers, located in Billings, Great Falls and Missoula, would serve as the major referral centers for accident victims and would have 24-hour emergency department physician coverage. It is anticipated that out-of-state transfers may be required for less than 5% of the trauma patients. Depending upon both the region and location within the region, out-of-state transfers would be sent to various referral centers, as follows:
  - Patients transferred out of the central part of Region 1, tend to be transferred to Spokane, Seattle or Portland.
  - Patients transferred from Regions 2 and 3 are usually transferred to Denver, Salt Lake City or centers in the mid-west.
- Spinal Cord Injuries - Improper initial handling and care of patients with spinal cord injuries, can easily result in further injury to the patient. Therefore, it is important to note that the training programs for ambulance attendants and first responders will emphasize the proper handling and care of patients with spinal cord injuries. There are no spinal cord centers in Montana, as noted in Chapter II, and there are no plans to develop any at this time. However, each of the three regional trauma centers has both orthopedic and neurological surgeons on its medical staff. Patients requiring care beyond the capability of the trauma centers would usually be transferred via air ambulance to spinal cord centers in Denver, Salt Lake City or Seattle.

- Burn Victims - Patients with severe burns may need to be transferred to one of the three regional trauma centers in Montana or to a specialized burn center in Texas or Salt Lake City. Air ambulances would generally be used for out-of-state transfers. Although the three trauma centers in Montana are not designated as burn centers, they are capable of treating relatively severe burns, as noted in Chapter II.

- Acute Coronary Victims - Approximately 75% of the hospitals in Montana have intensive care/coronary care units and are capable of providing a relatively high level of care for patients with acute coronary problems. The major impact of the proposed EMS system on acute coronary victims would be in the pre-hospital stage of response, as illustrated below:

    - Through public information and education programs, acute coronary victims or bystanders would recognize the signs of an onsetting heart attack and call the central communication center. An ambulance would be dispatched.

    - If the bystanders are aware of cardiopulmonary resuscitation (CPR) techniques, as a result of the intensified educational programs, CPR would be performed prior to the arrival of the ambulance.

    - If law enforcement personnel arrive at the scene prior to the ambulance, they would administer oxygen and CPR if necessary.

    - Upon arrival of the ambulance the EMT-A's would take a portable monitor defibrillator to the patient. The patient would be monitored and evaluated. The patient's vital signs and other pertinent information would be transmitted, via radio and telephone patch, to a local physician. Upon the physician's orders, drugs, I.V.'s, and defibrillation could be administered by an advanced EMT if necessary.

    - The patient would then be transported in an ambulance fully equipped for coronary care, to a local hospital with a coronary care unit. Direct voice contact with the hospital and physician would be maintained.

- High Risk Infants - Most high risk infants are born in hospitals, therefore the major impact of the EMS system is on the inter-hospital transfer stage of response. The response of the existing system to the care needs of high risk infants is generally adequate, as described below:

  - As noted in Chapter II, each region in Montana has a hospital with infant transport incubators and trained nurses to go to the other hospitals to affect transfers to the neonatal intensive care units (ICU).

  - Depending on the high risk infant's distance from the neonatal I. C. U., an air ambulance is used to transport the specially trained nurses and transport incubator to the appropriate airport.

  - The air ambulance is met by the local ground ambulance which takes the team to the hospital to pick up the infant and return to the airport.

  - The infant and transport team then fly back to the appropriate city where they are met by a ground ambulance for transport to the neonatal I. C. U.

  - Should it be necessary, the infant is transferred to a more sophisticated medical center out-of-state. Air mobile teams from Salt Lake City and Denver routinely come to Montana to pick up high risk infants. At times, the transfer of the infant to the regional neonatal I. C. U. is bypassed and the out-of-state air mobile teams fly directly to the community caring for the infant. Other out-of-state referral centers are Seattle and Rochester, Minnesota.

  The high risk infant care services outlined above would be included in the patient transfer manual to be distributed to all physicians and hospitals in Montana.

- Victims of Poisoning and Drug Overdose - As noted in Chapter II, virtually all hospitals in Montana have some capability for the treatment of victims of poisoning and drug overdose. Therefore, these patients are generally treated at local hospitals. However, few of the hospitals are equipped with the necessary expertise to adequately handle these types of patients. The proposed EMS system would provide to all physicians and hospitals information concerning the capability and method of accessing poison control centers, such as the Rocky Mountain Poison Center in Denver. Access to these centers would provide the local hospital and physician the necessary information to adequately care for the patient. (Refer to Appendix B-6 for a description of the services offered by the Rocky Mountain Poison Center.) In addition, the proposed EMS system will also provide improved pre-hospital care through information and education programs for the public as well as the training programs for ambulance attendants and first responders.

2. DESCRIPTION OF THE IMPLEMENTATION APPROACH FOR MONTANA'S STATEWIDE REGIONAL EMS SYSTEM

The implementation of the components of Montana's EMS system requires the cooperation and coordination of many organizations; associations; departments of local, state and federal governments; as well as, and most importantly, physicians who are in private practice. In general, the methodology for achieving the objectives of this plan is to, wherever practical, enter into contractual agreements with appropriate organizations to accomplish the specific objectives. This will help to ensure the cooperation and involvement of the various organizations, as well as reduce continuing administrative personnel costs. In addition, consultants will be used to provide technical assistance, which will also serve to reduce continuing personnel costs.

The following paragraphs identify the methodology that will be followed by the EMS Bureau in the implementation of several system components. It should be noted that the specific objectives discussed in the previous chapter adequately described the implementation approach for the following system components:

- Consumer participation
- Accessibility to care
- Consumer information and education
- Disaster planning
- Mutual aid
- Planning
- Organization and management
- Relationship to other health care delivery systems
- Development of standards and legislation

Therefore, the implementation approach for these components will not be addressed below.

(1) Implementation Of Manpower Objectives

The following methodologies will be used in implementing the EMS manpower objectives:

- The staffing needs of medical facilities will be determined from the information obtained during the categorization process discussed in Section (5) below.
- To assist ambulance services in recruting sufficient numbers of EMT's, the EMS Bureau will continue to maintain a current registry of certified EMT's and develop a listing of EMT's available for employment in the field. In addition, a registry of discharged Armed Forces medical corpsmen residing in or moving to Montana will be developed in cooperation with the MEDIHC program (Military Experience Directed Into Health Care).

- To encourage the creation of paid EMS personnel within county governments, contractual agreements for cost sharing to support such positions will be developed between the EMS Bureau and selected local governments. The local governments will be reimbursed on a quarterly basis.

(2) Implementation Of Training Objectives

To achieve the EMS training objectives, the following implementation approaches will be used:

- The EMS Bureau will do the following to train the necessary EMT-A personnel:
  - Assist local communities and educational institutions in establishing and coordinating EMT training programs and provide necessary course documents and training aids.
  - Monitor EMT courses to assure quality control.
  - Recruit the necessary experienced instructors to assist with EMT course instruction and testing.
  - Hold a course coordinators' workshop.
  - Develop and implement a computerized EMT record-keeping system.
  - Conduct final testing and certification in conjunction with the Board of Medical Examiners.
- To provide EMT-A refresher training, the EMS Bureau will:
  - Notify areas of the need for refresher training and assist communities in developing monthly training programs in accordance with the refresher course outline.

- Provide necessary course documents and training aids.
- Monitor the courses to assure quality control.
- Recruit the necessary instructors.
- Conduct final testing and re-certification.

. To provide ANRC Advanced First Aid and Emergency Care training for EMS dispatchers, the EMS Bureau will:

- Identify the EMS dispatchers that need the training.
- Contact the training committees of local EMS councils and ask their assistance in coordinating the training with the Wrangler Division of the ANRC.
- In cooperation with the Montana Law Enforcement Academy, assist local law enforcement agencies with the sponsorship of areawide seminars for first aid training.

. The EMS Bureau will meet with representatives of the various public safety agencies to cooperatively establish minimum first aid training guidelines for first responders. To institute a mechanism to accomplish the requisite training, the EMS Bureau will work cooperatively with the appropriate training agencies.

. To initiate Advance EMT training, the EMS Bureau will:

- Employ a qualified staff person to assist with the coordination of the training statewide.
- Meet with the Board of Medical Examiners to help develop rules and regulations covering training and certification of Advanced EMT's.
- Develop plans for the implementation of Advanced EMT training programs.
- Assist local communities to initiate the training programs.

- The Communications Division of the Department of Administration will provide, under the existing contract, the necessary communications training for EMS personnel. During the first year, the training will be provided at the hospitals which currently have EMS radio equipment. In the second year, training will be provided during the installation of the new radio equipment in the hospitals.
- To provide the necessary first aid training for the general public, the EMS Bureau will contract with the Wrangler Division of the ANRC. Contracts will be developed to:
  - Train two additional first aid instruction trainers in each of the three regions by the fourth month of implementation.
  - Train about 370 instructors in Standard First Aid and 180 instructors in Advanced First Aid and Emergency Care during the first year of implementation.
- To provide continuing education programs in emergency medical care to emergency department personnel, the EMS Bureau will contract with the Montana Medical Education and Research Foundation to develop and coordinate the necessary training.
- The EMS Bureau will contract with the American Heart Association to provide the necessary training in cardiopulmonary resuscitation.

(3) Implementation Of Communications Objectives

The Communications Division of the Department of Administration, as noted earlier, will provide the technical support for the procurement, installation and operation of the EMS communications system. The implementation of the EMS communications system will require the acceptance of the system by participating agencies and organizations, including:

- Emergency dispatching centers
- Ambulance companies
- Hospitals
- Civil Defense

Therefore, working agreements in writing should be developed between the EMS Bureau and the necessary agencies and organizations. Benefits to each and responsibilities of each must be agreed upon before any hardware is procured or any licenses are applied for.

When these participating agencies have agreed as to the extent and nature of their participation, the location and radio coverage of the base stations can be determined with reasonable assurance and the engineering study leading to final system specifications can be completed. Implementation can then proceed in a more routine fashion through station licensing, hardware procurement, installation and test.

A more detailed discussion of the implementation of the EMS communications system begins on page 99 of Appendix G.

(4) Implementation Of Transportation Objectives

To implement the transportation objectives concerning the purchase of ground ambulances and related equipment, the EMS Bureau will first advise, through the Association of County Comissioners and the Montana League of Cities and Towns, local governments of the availability of grant support and the need for local matching funds. Bid specifications for ambulances and equipment will then be developed and provided to local governments. The local governments will do their own purchasing through contractual agreements with the EMS Bureau with the option of using a state bid contract.

To assure that the quality of service provided by the air ambulances is acceptable in Montana, the EMS Bureau is sponsoring a medical air transportation workshop. As a result of the workshop, recommendations concerning air ambulance equipment criteria, accessibility, personnel training and education, and emergency rescue procedures will be provided to all air ambulance operators and physicians in the state. On-site inspections will determine if air ambulances are following the recommendations. If evaluation indicates that the recommendations are ineffectual at the end of the second year of implementation, the EMS Bureau will seek legislation to regulate the operation of air ambulances.

To evaluate the need for emergency water transportation services, the EMS Bureau will work cooperatively with several organizations, including the U.S. Coast Guard and the Montana Department of Fish and Game.

(5) Implementation Of Facilities Objectives

The EMS Bureau will contract with the Montana Hospital Association to accomplish the classification of hospital emergency departments, as outlined earlier. A preliminary agreement with this organization has already been reached. The classification information will be distributed to all ambulance services, hospitals and first responders.

Upon review of the emergency care capabilities of the hospitals in Montana, the EMS Bureau will determine the need for upgrading certain facilities. Both financial and technical assistance from the EMS Bureau will be available for upgrading the necessary facilities.

(6) Implementation Of The Objective For Access To Critical Care Units And Transfer Of Patients For Follow-Up Care

To improve access to critical care units in Montana and in nearby states, the EMS Bureau, through a contract with the

Montana Medical Education and Research Foundation, will develop and distribute to all physicians and hospital facilities in Montana a patient transfer reference manual which will indicate the location and capability of specialized critical care units within Montana and nearby states. The manual will be organized according to the three EMS regions in Montana and will indicate preferred transfer procedures, including appropriate transportation services.

This manual will also provide information concerning the location and capability of appropriate follow-up care and rehabilitation services within Montana and in nearby states.

(7) Implementation Of Objectives For Public Safety Agencies

To assure that appropriate public safety agencies are represented on the local and regional EMS councils, the EMS Bureau will continue to require that the councils' bylaws concerning membership stipulate the inclusion of public safety representatives.

(8) Implementation Of Objectives For Standardized Medical Record-Keeping And Program Evaluation

The EMS Bureau of the State Department of Health will take the overall responsibility for evaluating regional EMS systems. The EMS Bureau does not engage in the delivery of direct emergency services and is sufficiently independent of the EMS delivery system to provide relatively unbiased qualified evaluation. Further, the EMS Bureau has previously successfully accomplished EMS structural program evaluations.

The basic concept of the formal evaluation of Montana's regional EMS system is that of an objective, ongoing analysis of the qualitative and quantitative aspects of the emergency services which function within the EMS system. Such an evaluation must be an integral part of the program, one which will be essential in helping it reach and maintain a high level of effectiveness with minimal error and delay.

It should be noted at the outset that there is no secret formula, no single method that is best used to evaluate EMS programs. That which is best for New York or California does not necessarily apply to rural states such as Montana. It is vital that the design of the EMS program evaluation conform to the particular needs and resources of the state. Initial efforts in EMS evaluation basically involve measurements of its structure and processes. As the system develops, case oriented outcome evaluations will be made.

Evaluation of the EMS program will consist basically of four major evaluation subsystems, including:

- Ambulance Services Subsystem
- Hospital Encounter Subsystem
- Patient Transfer Subsystem
- Tracer Subsystem

The following paragraphs describe the design and implementation of the evaluation system in more detail.

(8.1) Staffing Requirements

The evaluation of the EMS system will be under the coordination of the EMS Council Organization and Evaluation Coordinator. The following additional personnel or services are required to implement the evaluation system:

- Two physician epidemiologists in the Department's Health Services Division will serve as consultants.

- A demographer, with a background in the design and operation of social service evaluation systems, will be retained to aid in statistical analysis, data processing design and implementation tailored to provider and user needs, and the design and implementation of data collection methods.

- The three EMS Bureau Regional Coordinators will undertake field investigation on a case-by-case basis for selective diagnosis. They will also be responsible for the maintenance of the operating reporting system.

- It will be necessary to contract for data reduction operation to process the ambulance trip reports, emergency room encounter and patient transfer forms.

- Two consulting cardiologists will be retained to assist in the refinement of the data collections methods, the evaluation of the investigative processes and for patient chart review as may be required. The services of these physicians will be utilized in the application of the "tracer" aspect of the evaluation scheme.

- Two additional secretaries will be needed to accomplish the necessary typing and clerical work required in the development of the evaluation system.

(8.2) Data Collection Requirements

The following paragraphs describe four major categories of data that will be collected to evaluate the EMS system:

- On-line statistical data - Essential information dealing with the structural elements of the systems will be collected at the operational level. Included in this portion of the evaluation system will be forms and reports generated by the health care providers, investigators and governmental agencies.

  Each program objective will be measured quarterly to determine whether the program standards for that objective have been met. This is basically an inventory or counting procedure. For example, the objective for EMT training is to have trained by July, 1976, 260 new EMT-A's. The evaluation here is simply whether or not the EMT's have been trained by the target date. An objective for transportation may be that by a given date, a certain percent of all ambulances will be in compliance with state design criteria. The evaluation in this case will be to see whether that in fact has occured.

  Data for each of these components will be compiled and analyzed quarterly by the EMS Bureau and determination made as to the degree of complicance with program standards and objectives. Written evaluation reports will be prepared and submitted to HEW, the Governor's Advisory Council on Emergency Medical Services and the Director of the State Department of Health. Similar reports will be prepared quarterly thereafter.

- Case histories for critical clinical components - To obtain qualitative data and to verify the reliability of the statistical data, selected case histories will be made. In order that the various critical clinical components are included, cases involving trauma, burns, coronary care, high risk infant, drug overdoes and alcohol detoxification and psychiatric emergencies will be examined. Cases for individual follow-up will be selected from the on-line data sources. Case histories will be developed on the basis of retrospective interviews with patients, witnesses and providers. The data collection and analysis methods will be the same as that in the "tracer" subsystem.

- Field audit - The field investigators will be participant and non-participant observers of the EMS system reaction processes. The investigators will be riding in ambulances, watching the work in emergency departments and other critical care units. Their observations will be recorded, using tape recorders, written narratives and report forms. Collected field audits will be gathered and analyzed by the EMS Bureau in Helena at random intervals.

- System analysis employing a tracer element - A more recent strategy for assessing health care delivery has been the utilization of so-called "tracers" which are sets of specific health problems or procedures. It has been demonstrated by Kessner et al(1) that this evaluation strategy may allow health care evaluators to effectively contend with critical services and outcomes in medical practice settings. The underlying assumption in this strategy is that a provider's methods and success of care (for the selected tracer) will parallel his performance in other processes of care.

  Each element in the EMS system produces an outcome and can be evaluated independently. In proper interaction, the elements guarantee the successful flow of the emergency patient from the site of onset through treatement to rehabilitation and recovery. Following the occurrence of the incident, these elements are:

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(1) "Contrasting Forms of Ambulatory Care: Analysis by Tracers", Kessner, David M. et al A paper presented to the American Public Health Association, 1972.

- Pre-hospital -
  - .. recognition of the incident
  - .. response by bystanders
  - .. notification and accessing the EMSS
  - .. response by the EMSS
  - .. EMS agents actions at the site
  - .. transportation of the patient by the EMS agency
- Hospital -
  - .. care in the emergency room
  - .. inpatient care
  - .. transferral
  - .. specialized care
- Post-hospital -
  - .. rehabilitation
  - .. long term convalesance

The choice of a representative tracer in evaluating emergency medical systems is difficult. There are a variety of medical emergencies from which to choose. However, many medical emergencies such as burns, poisonings and trauma are not suitable as tracers due to the following reasons:

- The tracer must occur frequently enough for the development of an adequate randomly selected data base.

- A large proportion of the tracer cases should be responded to by the EMS system.

- The tracer should usually occur as an independent clinical event.

- There should be some degree of uniformity in the seriousness of the tracer.

One of the few medical emergencies which meets the above requirements is the myocardial infarction, which will therefore, be used as the tracer condition throughout the EMS system in Montana. Methods of case selection and the techniques for follow-up will be developed during the second month of the second year of implementation. It is projected that 100 cases will be followed yearly.

(8.3) Performance Data Sources

The following paragraphs identify several performance data sources to be used by the evaluation system:

- Ambulance Trip Report Forms - These forms will be the backbone of the evaluation for ambulance utilization. Analysis of the data generated by them will indicate patterns of ambulance utilization by age and sex, nature of injury, illness or type of burn, aid given, vital signs, destination data, length of run and time factors. The form also indicates the number and identity of the ambulance crew.

  However, these forms do not include information as to the care provided prior to the arrival of the ambulance nor information concerning emergent patients who do not use ambulances to reach hospitals. For that information, it will be necessary to implement and emergency department encounter form, to be completed in the emergency room.

- Emergency Department Encounter Form - In addition to being a logical continuation of the ambulance trip report form, the emergency department encounter form will secure specific data on emergency patients who do not enter the hospital via ambulance. This instrument will provide information as to the patients age, sex, type of injuries, time factors, transportation modes, diagnosis, treatment process and system outcomes.

Analysis of these data should provide insight into demand by various time periods and injury types. It will also help determine the number of patients who are correctly or incorrectly utilizing ambulance resources. In addition, the emergency department encounter form will provide a necessary data link in following patients through the continuum of care.

- Death Certificates - Furnished by the Bureau of Records and Statistics, these records will be analyzed to determine patterns of deaths from medical emergencies, intervals between injury and death, date of injury and county of occurrence. Death certificates will be used to select cases for both case history investigations and tracer follow-up. Because deaths represent, for the most part, system failures, case histories on selected categories of fatalities will be made to determine if flaws in the response system contributed to the death. Care will be taken to include representative cases from the critical care categories of burns, poisonings, neonatal, trauma and drug and alcohol overdose.

- Social and Rehabilitative Services Reports - Statistical summaries on selected aspects of medical emergencies involving welfare patients are also available. These summaires provide data relating to specific hospitals and medical conditions. The data can be processed by the Department of Social and Rehabilitative Services and presented in a format compatable with the final EMS evaluation design.

- Patient Transfer Forms - These forms, when developed, will provide information concerning the origin and destination, mode of transfer and nature of illnes or injury for emergency patients transferred for follow-up care or rehabilitation.

The above list is not intended to be exhaustive. Further refinement in the design of the evaluation system will probably necessitate the acquisition of new sources. The list also omits the reports and findings of the field investigators which will be of considerable value.

3. COOPERATION AND COORDINATION REQUIREMENTS OF OTHER AGENCIES

The implementation and operation of Montana's EMS system will require the involvement of various agencies and organizations. The present and anticipated involvement of each of the necessary agencies and organizations is noted below:

- Montana Medical Association - This association has endorsed the existing Montana State Plan for the improvement of EMS. Individual physicians throughout the state are donating their time to provide EMT training at the local level. Physicians are encouraged, and are taking the leadership role in local EMS councils. It is anticipated that through the cooperation of the Montana Medical Association and local medical societies, the guidelines for the transfer of patients among facilities and referral to specialized critical care facilities will have the support of the physicians.
- Montana Nurses' Association - Individual nurses throughout the state presently are donating their time to assist with the training of EMT's at the local level. In many facilities, the nurses have recognized the EMT as a part of the team in the emergency department. It is anticipated that the Montana Nurses' Association will continue to support this concept and, therefore, expand the acceptance of EMT's.
- Montana Ambulance Association - This association has supported the Montana State Plan for the Improvement of EMS and has made the inspection of ambulance services and the training of ambulance attendants more acceptable among individual ambulance services. It is anticipated that this association will be involved with the training of Advanced EMT's and be in support of this type of training.

- American National Red Cross (ANRC) - Wrangler Division - This organization has, in the past, worked closely with the EMS Bureau in the provision of first aid training to the general public. Future involvement of this organization, it is anticipated, will be in the area of training of the general public in Basic, Multi-Media, Standard, Advanced and cardiopulmonary resuscitation (CPR) training programs. The ANRC - Wrangler Division will need to become more involved with this type of training within the school system.

- Montana Heart Association - The Heart Association has in the past been supportive of the training efforts of the EMS Bureau and has made the bureau a member of its state training committee. The future involvement of the Montana Heart Association, it is anticipated, will be in the area of CPR training for the general public, Basic and Advanced Life Support training for ambulance attendants and support of the EMT training programs.

- Montana State Hospital Association - The criteria for hospital emergency department classification discussed in Chapter III was developed in cooperation with this association. It also has supported the EMT training programs and endorsed the involvement of the EMT in the emergency department. Future involvement of this association, it is anticipated, will be in the implementation of the hospital classification system.

- Highway Traffic Safety Division - An agreement between the EMS Bureau and the Highway Traffic Safety Division has been entered into wherein the use of funds under the Highway Safety Act will be coordinated with the EMS Bureau and other sources of federal funds. See Appendix E for a copy of the agreement.

- State Office of Civil Defense - In the past, this organization has provided the leadership for disaster planning at the state, district and county levels. It is anticipated that the future involvement of this organization will be in the area of EMS communications, disaster planning and, in certain areas, financial support of the local EMS system.

- Tribal Government - Tribal governments have participated in the review of this plan. In some areas, they have entered into agreements and contracts with the adjacent local EMS system. Tribal governments have also participated in planning with local EMS councils. It is anticipated that tribal governments will continue to participate in ongoing planning through local EMS councils and will develop their components of emergency medical services so that they will integrate with adjacent EMS systems.

- Montana Association of Counties - This organization has assisted the EMS Bureau in providing information to county governments regarding this plan. It is anticipated that in the future, this association will continue to support the activities of the EMS Bureau, specifically in the area of stimulating county governments to financially support emergency medical services.

- Indian Health Service - This organization has, in the past, provided assistance with training of first responders and ambulance attendants on indian reservations. It is anticipated that this organization will continue to provide this type of coordinated support.

- Montana League of Cities and Towns - This organization has assisted the EMS Bureau in providing information to county governments regarding this plan. It is anticipated that in the future, this association will continue to support the activities of the EMS Bureau, specifically in the area of stimulating county governments to financially support emergency medical services.

- Office of the Superintendent of Public Instruction - This elected agency has, in the past, supported emergency medical services objectives through its joint committee and the Department of Health and Environmental Sciences. It is anticipated that this agency will support the teaching of first aid throughout the school system, starting at the 6th grade level.

- Community Health Nurses - This is a new identification of nurses in Montana. However, they have in the immediate past, participated in first aid training programs sponsored by the EMS Bureau and the Wrangler Division of the American National Red Cross. It is anticipated that these nurses will continue to be involved and, furthermore, will become qualified as Red Cross First Aid instructors for their areas of service.

- Local Medical Societies - These individual organizations have supported EMS planning and EMS councils, as well as EMT training for ambulance attendants. It is anticipated that these local organizations will give support to Basic and Advanced EMT training programs, as well as first aid training for first responders and the general public. It is also anticipated that they will support CPR training for the general public, as well as Basic and Advanced Life Support training for ambulance attendants.

- Local Health Planning Agencies - In the past, these organizations, specifically CHP "b" agencies, have participated to a limited degree, in local EMS councils and EMS planning. It is anticipated that these organizations, or future planning organizations, will take a more active role in EMS planning to help integrate EMS as a part of the total health delivery system.

- Highway Patrol - In the past, the Highway Patrol has participated in EMS training programs to a limited degree. It is anticipated that in the future, the Highway Patrol will incorporate more first aid training in its law enforcement academy and will be encouraged to take local EMT training programs.

- Communications Division, Department of Administration - In the past, there has been a very close coordination of the EMS radio network with the Communications Division. In the future, as noted earlier, the Communications Division will provide all necessary communications services to the EMS Bureau.

- Trauma Committee, College of Surgeons, Montana Chapter - This organization provided the leadership in developing the criteria for hospital classification. It also is represented on the Governor's Advisory Council for EMS. It is anticipated that in the future, this organization will assist with the hospital classification program.

- Mountain States Regional Medical Program (MS/RMP) - This organization has funded the State Department of Health and Environmental Sciences to develop the original State Plan for the Improvement of EMS. It also has conducted EMS training programs for physicians and nurses. It is anticipated that MS/RMP will continue to support EMS through funding special training programs.

- Associated Public Safety Communication Officers, Inc. (APCO) - A communications manual for EMS has been developed in conjunction with APCO. The communications coordinator on the EMS Bureau staff (now deceased) was appointed (Oct. 1974) as the special emergency radio service frequency coordinator for the state chapter of APCO. It is anticipated that this organization will assist with the implementation of central dispatching.

- Montana Medical Education and Research Foundation (MMERF) - The EMS Bureau currently is sub-contracting with MMERF for conducting training programs in emergency medical care for physicians and nurses. It is anticipated that future professional training in emergency medical care will be subcontracted to MMERF.

- Western Montana Health Education Council - In cooperation with MMERF, this organization has participated in the conduct of physician and nurse training in emergency medical care. It is anticipated that the Western Montana Health Education Council will assist with future professional training programs in emergency medical care.

- Comprehensive Health Planning "a" Agency - CHP's emergency department committee participated in the development of the hospital classification criteria. The emergency department committee is composed of selected emergency department nurses and representatives of the Montana Chapter of the College of Surgeon's Trauma Committee.

> The CHP State Plan recommends the implementation of the original state EMS plan. In the future, it is anticipated that CHP "a" and "b" agencies will assist in the identification of deficiencies and needs for hospital critical care units.

* * * * *

This chapter described the implementation approach that will be used by Montana to achieve the objectives presented in Chapter IV. The next chapter presents the state's EMS program implementation schedule.

VI. PROGRAM IMPLEMENTATION SCHEDULE

VI. PROGRAM IMPLEMENTATION SCHEDULE

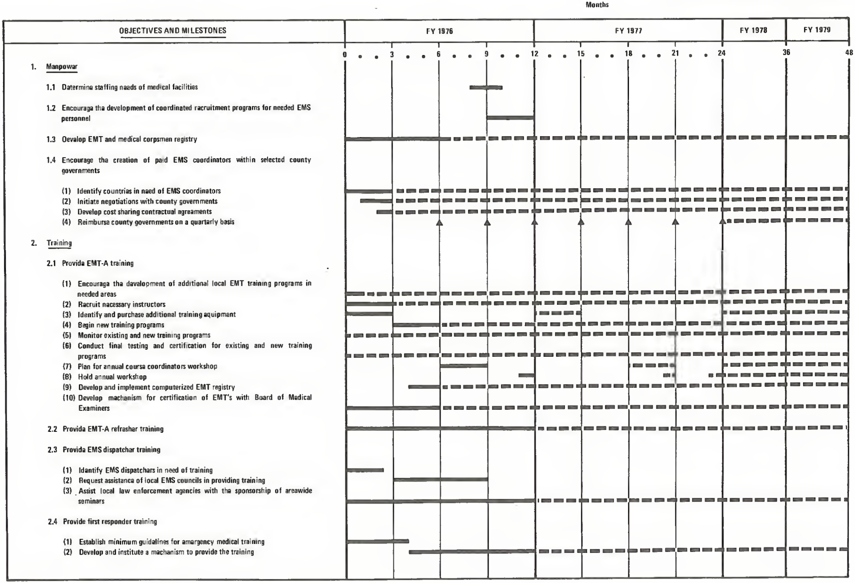
The implementation schedule for Montana's statewide regional EMS system is presented in Exhibit XXVIII, following this page. The objectives and milestones identified in the exhibit for each of the system components have been discussed in more detail in the previous two chapters. The time frame for implementation is based on the assumption that the grant period will begin on July 1, 1975, the start of fiscal year 1976. The implementation period for the overall program covers four years, from fiscal year 1976 through fiscal year 1979.

The exhibit provides for an orderly and sequential schedule of implementation. It should serve as a guide and be reviewed periodically and updated as required. In addition, the schedule will provide a means to evaluate the degree of success in meeting the program objectives.

EXHIBIT XXVIII

Montana EMS Bureau

MONTANA EMS PROGRAM IMPLEMENTATION SCHEDULE



OBJECTIVES AND MILESTONES

1. Manpower
   - 1.1 Determine staffing needs of medical facilities
   - 1.2 Encourage the development of coordinated recruitment programs for needed EMS personnel
   - 1.3 Develop EMT and medical corpsmen registry
   - 1.4 Encourage the creation of paid EMS coordinators within selected county governments
     - (1) Identify counties in need of EMS coordinators
     - (2) Initiate negotiations with county governments
     - (3) Develop cost sharing contractual agreements
     - (4) Reimburse county governments on a quarterly basis
2. Training
   - 2.1 Provide EMT-A training
     - (1) Encourage the development of additional local EMT training programs in needed areas
     - (2) Recruit necessary instructors
     - (3) Identify and purchase additional training equipment
     - (4) Begin new training programs
     - (5) Monitor existing and new training programs
     - (6) Conduct final testing and certification for existing and new training programs
     - (7) Plan for annual course coordinators workshop
     - (8) Hold annual workshop
     - (9) Develop and implement computerized EMT registry
     - (10) Develop mechanism for certification of EMT's with Board of Medical Examiners
   - 2.2 Provide EMT-A refresher training
   - 2.3 Provide EMS dispatcher training
     - (1) Identify EMS dispatchers in need of training
     - (2) Request assistance of local EMS councils in providing training
     - (3) Assist local law enforcement agencies with the sponsorship of areawide seminars
   - 2.4 Provide first responder training
     - (1) Establish minimum guidelines for emergency medical training
     - (2) Develop and institute a mechanism to provide the training

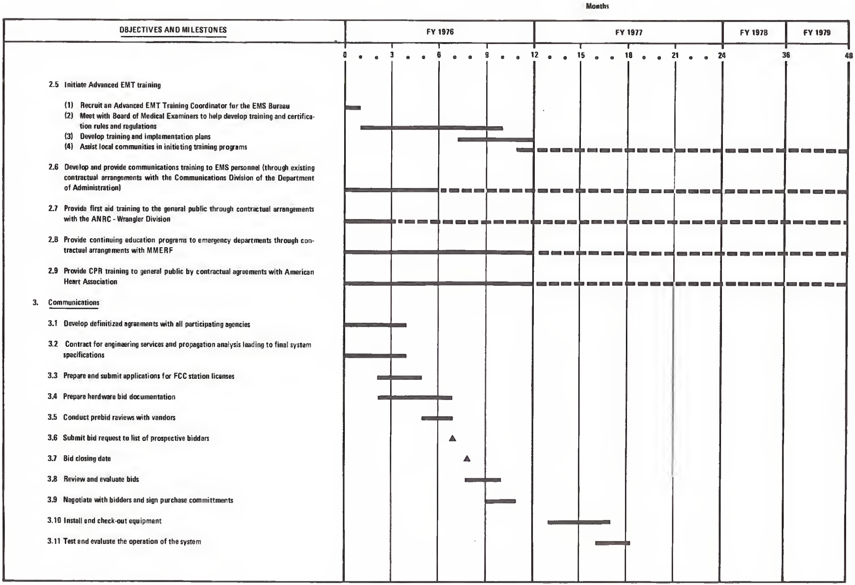
━━━━ Initial development and implementation

▬ ▬ ▬ ▬ Continuing program

Source: Montana EMS Bureau

EXHIBIT XXVIII

(Continued)



OBJECTIVES AND MILESTONES

2.5 Initiate Advanced EMT training

(1) Recruit an Advanced EMT Training Coordinator for the EMS Bureau
(2) Meet with Board of Medical Examiners to help develop training and certification rules and regulations
(3) Develop training and implementation plans
(4) Assist local communities in initiating training programs

2.6 Develop and provide communications training to EMS personnel (through existing contractual arrangements with the Communications Division of the Department of Administration)

2.7 Provide first aid training to the general public through contractual arrangements with the ANRC - Wrangler Division

2.8 Provide continuing education programs to emergency departments through contractual arrangements with MMERF

2.9 Provide CPR training to general public by contractual agreements with American Heart Association

3. Communications

3.1 Develop definitized agreements with all participating agencies

3.2 Contract for engineering services and propagation analysis leading to final system specifications

3.3 Prepare and submit applications for FCC station licenses

3.4 Prepare hardware bid documentation

3.5 Conduct prebid reviews with vendors

3.6 Submit bid request to list of prospective bidders

3.7 Bid closing date

3.8 Review and evaluate bids

3.9 Negotiate with bidders and sign purchase committments

3.10 Install and check-out equipment

3.11 Test and evaluate the operation of the system

▬▬ Initial development and implementation

▬ ▬ ▬ ▬ Continuing program

Source: Montana EMS Bureau

EXHIBIT XXVIII

(Continued)

OBJECTIVES AND MILESTONES

4. Transportation

4.1 Purchase ground ambulances and appropriate equipment

(1) Advise local governments of availability of grant support and need for local matching funds
(2) Provide bid specifications to local governments
(3) Enter into contractual agreements with local governments
(4) Inspect new vehicles and equipment to assure compliance with specifications
(5) Reimburse local governments

4.2 Assure that the quality of air ambulance services is acceptable

(1) Print and distribute air ambulance recommendations
(2) Conduct on-site inspections and evaluate conformance with recommendations
(3) If necessary, seek legislation to regulate air ambulances

4.3 Evaluate the need for improved emergency water transportation services and develop a mechanism for meeting identified needs

5. Facilities

5.1 Classify hospital emergency departments

(1) Contract with Montana Hospital Association
(2) Print and distribute classification criteria to all hospitals for self classification
(3) Receive responses from hospitals
(4) Distribute classification information to ambulance services, first responders and hospitals

5.2 Assure the adequacy of hospital facilities

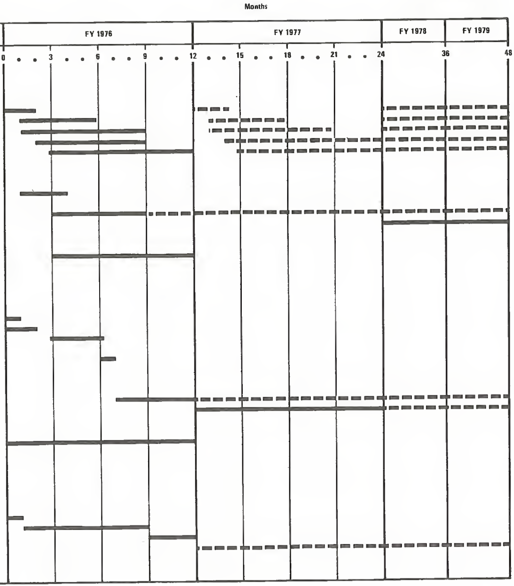
(1) Evaluate the need for upgrading certain facilities
(2) Provide financial and technical assistance to meet identified needs

5.3 Provide assistance to appropriate hospitals in securing written agreements with other hospitals

6. Access to Critical Care Units

6.1 Develop and distribute a patient transfer reference manual through a contract with MMERF

(1) Contract with MMERF
(2) Research and development
(3) Print and distribute manual
(4) Update manual as necessary



▬ Initial development and implementation

▬ ▬ ▬ ▬ Continuing program

Source: Montana EMS Bureau

EXHIBIT XXVIII
(Continued)

OBJECTIVES AND MILESTONES

7. Public Safety Agencies

7.1 Review the bylaws of existing and future local and regional EMS councils to ensure that provisions for public safety agency representation is included

8. Consumer Participation

8.1 Review the bylaws of existing and future local and regional EMS councils to ensure that provisions for consumer participation are included

8.2 Provide for the review of EMS plans by the CHP "a" agency and appropriate "b" agencies, or other health planning organizations

9. Accessibility to Care

9.1 Send letter to appropriate providers of emergency services indicating the need for written assurances that neccessary emergency medical services will be provided without prior inquiry as to ability pay

9.2 Review written assurances prior to the distribution of any state or federal funds to providers

10. Transfer of Patients for Follow-up Care
(Refer to 6, Access to Critical Care Units)

11. Standardized Medical Record-Keeping
(Refer to 13, Evaluation)

12. Consumer Information and Education

12.1 Develop and distribute public information packets to local EMS councils

12.2 Promote the posting of the regional emergency telephone number on public and private telephones

12.3 Expand existing public information program

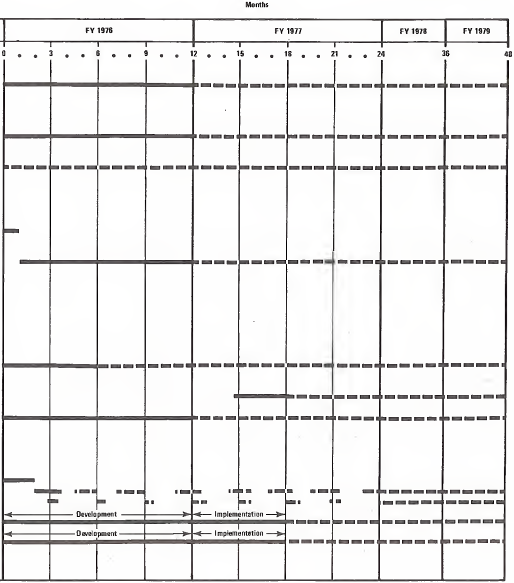
13. Evaluation

13.1 Prepare quarterly performance reports

(1) Develop procedures and establish routine for data collection
(2) Receive and compile data for quarter report
(3) Analyze data, write quarter report and distribute

13.2 Develop and implement ambulance services subsystem

13.3 Develop and implement hospital encounter subsystem



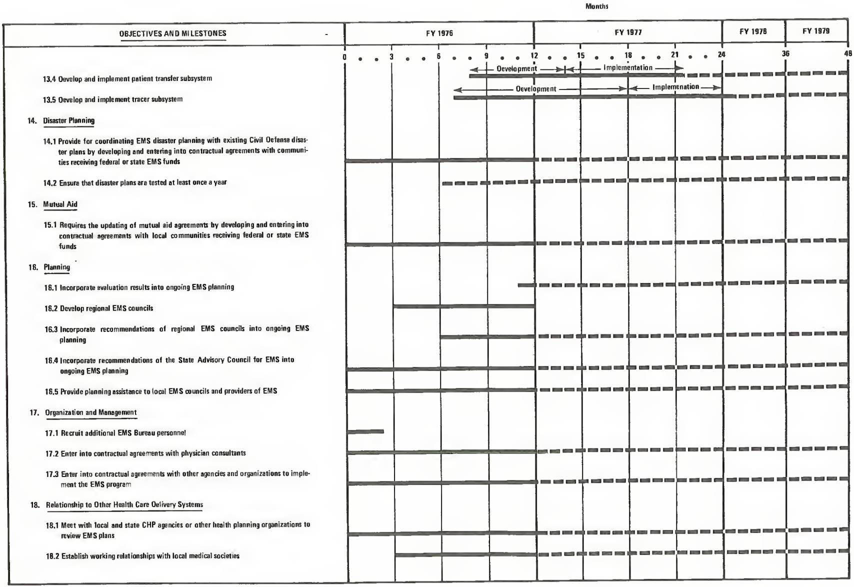
━━━ Initial development and implementation

━ ━ ━ ━ Continuing program

Source: Montana EMS Bureau

EXHIBIT XXVIII

(Continued)



OBJECTIVES AND MILESTONES

13.4 Develop and implement patient transfer subsystem

13.5 Develop and implement tracer subsystem

14. Disaster Planning

14.1 Provide for coordinating EMS disaster planning with existing Civil Defense disaster plans by developing and entering into contractual agreements with communities receiving federal or state EMS funds

14.2 Ensure that disaster plans are tested at least once a year

15. Mutual Aid

15.1 Requires the updating of mutual aid agreements by developing and entering into contractual agreements with local communities receiving federal or state EMS funds

16. Planning

16.1 Incorporate evaluation results into ongoing EMS planning

16.2 Develop regional EMS councils

16.3 Incorporate recommendations of regional EMS councils into ongoing EMS planning

16.4 Incorporate recommendations of the State Advisory Council for EMS into ongoing EMS planning

16.5 Provide planning assistance to local EMS councils and providers of EMS

17. Organization and Management

17.1 Recruit additional EMS Bureau personnel

17.2 Enter into contractual agreements with physician consultants

17.3 Enter into contractual agreements with other agencies and organizations to implement the EMS program

18. Relationship to Other Health Care Delivery Systems

18.1 Meet with local and state CHP agencies or other health planning organizations to review EMS plans

18.2 Establish working relationships with local medical societies

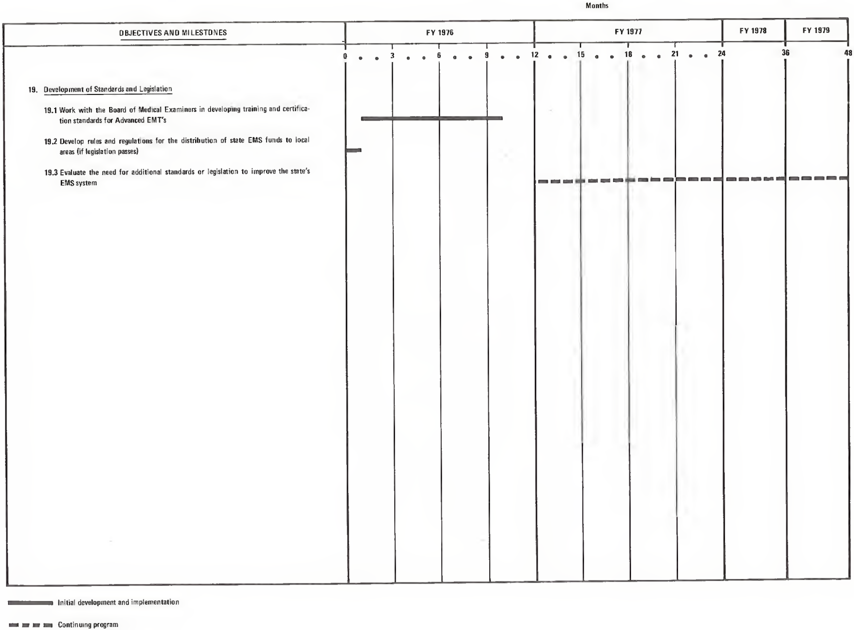
▬▬ Initial development and implementation

▬ ▬ ▬ ▬ Continuing program

Source: Montana EMS Bureau

EXHIBIT XXVIII

(Continued)



19. Development of Standards and Legislation

19.1 Work with the Board of Medical Examiners in developing training and certification standards for Advanced EMT's

19.2 Develop rules and regulations for the distribution of state EMS funds to local areas (if legislation passes)

19.3 Evaluate the need for additional standards or legislation to improve the state's EMS system

Source: Montana EMS Bureau

VII. BUDGET SCHEDULE

VII. BUDGET SCHEDULE

The estimated cost for the first year of implementation of Montana's statewide regional EMS system is over $1.8 million. This includes estimated cash costs of about $1.64 million and in-kind contributions of over $170,000. Exhibit XXIX, following this page, presents the statewide budget summary for the first year of implementation of the EMS system and identifies the costs by region. As noted in the exhibit, the first year implementation costs (including in-kind contributions) by region are:

- Region 1: $593,000
- Region 2: $488,000
- Region 3: $733,000

Exhibit XXX, following Exhibit XXIX, summarizes the first year EMS program budget by system component and region. In general, only the system components for which a significant cost can be identified are presented in Exhibit XXX. However, it should be noted that the planning component and the organization and management component relate to virtually all the system components, including those not presented in the exhibit.

Exhibits XXXI through XXXV, following Exhibit XXX, present supporting budget information. Additional detailed budget information is contained in Appendix F.

EXHIBIT XXIX

Montana EMS Bureau

BUDGET SUMMARY FOR THE FIRST YEAR OF IMPLEMENTATION OF MONTANA'S STATEWIDE REGIONAL EMS SYSTEM
FY 1976

	EMS Regions			
Cash Costs	Region 1	Region 2	Region 3	State Total
Personnel	$ 68,000	$ 68,000	$ 68,000	$ 204,000
Operating Expenses	30,300	30,300	30,300	90,900
Equipment	370,900	254,500	504,700	1,130,100
Contracted Services	66,100	82,900	66,200	215,200
Subtotal	$535,300	$435,700	$669,200	$1,640,200
In-Kind Contributions	$ 57,500	$ 52,500	$ 64,000	$ 174,000
TOTAL	$592,800	$488,200	$733,200	$1,814,200

Note: Numbers may not agree exactly with other exhibits due to rounding.

Source: Montana EMS Bureau and Booz, Allen & Hamilton estimates for communications costs.

EXHIBIT XXX

Montana EMS Bureau

FIRST YEAR EMS PROGRAM BUDGET
SUMMARY BY EMS SYSTEM COMPONENT AND REGION
FY 1976

	EMS Regions			
EMS System Components	Region 1	Region 2	Region 3	State Total
Manpower	$ 7,600	$ 34,800	-	$ 42,400
Training	62,500	43,500	$ 76,500	182,500(1)
Communications	228,100	176,200	320,400	724,700
Transportation	162,100	98,500	204,000	464,600
Facilities(2)	300	200	300	800
Access to Critical Care Units and Transfer of Patients for Follow-Up Care	7,400	6,900	7,100	21,400
Evaluation and Standardized Medical Records	20,600	20,500	20,600	61,700
Consumer Information and Education	7,600	7,600	7,600	22,800
Planning, Organization and Management	96,800	100,000	96,700	293,500(1)
TOTAL	$593,000	$488,200	$733,200	$1,814,400

(1) Includes in kind contributions

(2) As noted in previous chapters, the cost for the facilities component in the first year of implementation relates only to hospital classification.

Note: Numbers may not agree exactly with other exhibits due to rounding.

Source Montana EMS Bureau and Booz, Allen & Hamilton estimates for communications costs.

EXHIBIT XXXI

Montana EMS Bureau

EMS BUREAU PERSONNEL COSTS FOR THE FIRST YEAR OF PROGRAM IMPLEMENTATION FY 1976

EMS Bureau Staff	g, Organization Management	Total Personnel Costs		
		Total	Salary	Fringe Benefits
Existing Personnel				
Bureau Chief	18,180	$18,180	$15,817	$ 2,363
Ambulance Licensing Training Coordinator	3,777	15,108	13,144	1,964
EMS Council Organiz Coordinator	2,067	13,777	11,986	1,791
First Aid Training Co	2,513	12,564	10,931	1,633
Public Information C	-	11,460	9,972	1,488
Secretary (Helena)	8,664	8,664	7,538	1,126
Secretary (Helena)	3,246	7,212	6,274	938
Subtotal	38,447	$ 86,965	$75,662	$ 11,303
Proposed Personnel				
Critical Care Coordi	3,224	$16,120	$13,000	$3,120
Advanced EMT Trai	-	14,210	11,460	2,750
Regional Coordinator	14,210	14,210	11,460	2,750
Regional Coordinator	14,210	14,210	11,460	2,750
Regional Coordinator	14,210	14,210	11,460	2,750
Accounting Clerk	9,791	9,791	7,896	1,895
Secretary - ½ time (I	-	4,895	3,950	945
Secretary (Region 1)	9,791	9,791	7,896	1,895
Secretary (Region 2)	9,791	9,791	7,896	1,895
Secretary (Region 3)	9,791	9,791	7,896	1,895
Subtotal	85,018	$117,019	$94,374	$22,645
TOTAL PERSONNEL COS	23,465	$203,984	$170,036	$33,948
Regional Allocation:				
Region 1	41,155	$ 67,995		
Region 2	41,155	67,995		
Region 3	41,155	67,995		

Source: Montana EMS Bureau

EXHIBIT XXXII

Montana EMS Bureau

EMS BUREAU OPERATING EXPENSES FOR THE FIRST YEAR OF PROGRAM IMPLEMENTATION
FY 1976

	EMS System Components		
Operating Expense Category	Standardized Medical Records and Evaluation	Planning, Organization and Management	Total Operations Expense
Supplies and Materials	$1,800	$13,250	$15,050
Telephone and Postage	500	16,080	16,580
Travel	6,000	32,110	38,110
Rent	2,850	10,475	13,325
Utilities	-	810	810
Repair and Maintenance	-	450	450
Other	800	5,800	6,600
TOTAL	$11,950	$78,975	$90,925
Regional Allocation:			
Region 1	$3,983	$26,325	$30,308
Region 2	3,983	26,325	30,308
Region 3	3,983	26,325	30,308

Source: Montana EMS Bureau

EXHIBIT XXXIII

Montana EMS Bureau

FIRST YEAR EMS PROGRAM EQUIPMENT COSTS
FY 1976

	EMS System Components				Total
EMS Regions	Training	Communication	Transportation	Planning, Organization And Management	Equipment Costs
Region 1	$2,900	$205,000	$159,800	$3,200	$370,900
Region 2	1,400	153,800	96,100	3,200	254,500
Region 3	3,900	295,900	201,700	3,200	504,700
TOTAL	$8,200	$654,700	$457,600	$9,600	$1,130,100

Source: Montana EMS Bureau and Booz, Allen & Hamilton estimates for communications costs.

EXHIBIT XXXIV

Montana EMS Bureau

CONTRACTED SERVICES COSTS FOR THE FIRST YEAR OF EMS PROGRAM IMPLEMENTATION

FY 1976

	EMS System Components							
EMS Regions	Manpower	Training	Communications	Facilities(1)	Access to Critical Care Units and Transfer for Follow-up Care	Evaluation and Standardized Medical Records	Consumer Information and Education	Total Contract Costs
Region 1	$ 7,620	$ 17,510	$ 23,131	$ 260	$ 3,060	$ 10,800	$ 3,752	$ 66,133
Region 2	34,794	8,380	22,349	220	2,635	10,800	3,752	82,930
Region 3	-	24,010	24,520	320	2,805	10,800	3,752	66,207
TOTAL	$42,414	$49,900	$70,000	$800	$8,500	$32,400	$11,256	$215,270

Source: Montana EMS Bureau and Booz, Allen & Hamilton estimates for communications costs.

(1) As noted in previous chapters, the cost for the facilities component in the first year of implementation relates only to hospital classification.

EXHIBIT XXXV

Montana EMS Bureau

IN-KIND CONTRIBUTION FOR THE FIRST YEAR OF EMS PROGRAM IMPLEMENTATION
FY 1976

	EMS System Components		
EMS Regions	Training	Planning, Organization And Management	Total In - Kind Contributions
Region 1	$31,443	$26,077	$57,520
Region 2	23,120	29,336	52,456
Region 3	37,917	26,077	63,994
TOTAL	$92,480	$81,490	$173,970

Source: Montana EMS Bureau

APPENDIX A

Revised Codes of Montana, Chapter 70 A-1

Suggested By-Laws of the Montana Emergency Medical Services Advisory Council A-2

Missoula Emergency Services for Health Council (MESH Council) By-Laws A-3

Revised Codes of Montana, Chapter 36 A-4

Montana Ambulance Regulations A-5

Revised Codes of Montana A-6

Revised Codes of Montana A-7

Chapter No. 84, Montana Session Laws 1975, House Bill No. 72 A-8

CHAPTER 70--EMERGENCY MEDICAL SERVICES PROGRAM

Section
69-7001. Declaration of policy and purpose.
69-7002. Emergency medical services program--duties of department.

69-7001. Declaration of policy and purpose. The public welfare requires the providing of assistance and encouragement for the development of a comprehensive emergency medical services program for Montanans who each year are dying and suffering permanent disabilities needlessly because of inadequate emergency medical services. The repeated loss of persons who die unnecessarily because necessary life support personnel and equipment are not available to victims of accidents and sudden illness is a tragedy that can and must be eliminated. The development of an emergency medical services program is in the interest of the social well-being and health and safety of the state and all its people. History: En 69-7001 by Sec. 1, Ch. 311, L. 1974.

Title of Act. An act providing for the administration of an emergency medical services program by the department of health and environmental sciences.

69-7002. Emergency medical services program--duties of department. The department of health and environmental sciences shall establish and administer an emergency medical services program. The department is authorized to confer and co-operate with any and all other persons, organizations and governmental agencies that have an interest in emergency medical services problems and needs, and the department is authorized to accept, receive, expend and administer any and all funds which are now available or which may be donated, granted or appropriated to the department of health and environmental sciences and the department of intergovernmental relations, highway safety division and other interested departments or divisions, shall develop in writing a mutually agreeable plan of co-operation, so that governmental effort will not be duplicated and governmental resources will be applied on a reasonable priority basis. History: En. 69-7002 by Sec. 2, Ch. 311, L. 1974.

SUGGESTED BY-LAWS OF THE
MONTANA EMERGENCY MEDICAL SERVICES ADVISORY COUNCIL

ARTICLE I

NAME

The name of the council is the Montana Emergency Medical Services Advisory Council.

ARTICLE II

PURPOSE

The Advisory Council has been formed to advise the Department of Health in establishing regulations under the Ambulance Licensing Program, upgrading emergency medical care and State Plan for care of sick and injured in times of major disaster.

ARTICLE III

MEMBERSHIP

SECTION 1. MEMBERS. The Advisory Council shall include geographic distribution of emergency medical personnel for varying occupational fields such as ambulance services, hospitals, American National Red Cross, government officials, physicians, nurses and others involved with the immediate care of the sick and injured.

SECTION 2. TENURE. Each member of the council shall hold office at the pleasure of the Governor. Any officer or committee member may be recommended to the Governor for removal by a majority of the council.

SECTION 3. COMPENSATION. Each member of the council shall, unless he is a full-time salaried officer or employee of the state, be paid in an amount to be determined by the department head, not to exceed twenty-five dollars ($25.00) for each day in which he is actually and necessarily engaged in the performance of council duties and shall also be reimbursed for actual and necessary expenses incurred while in the performance of council duties. Members who are full-time salaried officers or employees of the state, federal or local government may not be compensated for their service as members, but shall be reimbursed for their expenses.

ARTICLE IV

MEETINGS

SECTION 1. MEETINGS. Meetings shall be held at least annually in December and/or upon the call of the Governor, creating authority, chairman, or a majority of the council members. Meetings shall be held in Helena.

SECTION 2. NOTICE. Notice of all meetings shall include a tentative agenda and shall be sent by mail to the entire membership by the secretary at least 30 days in advance of the meeting.

SECTION 3. QUORUM. A majority of the membership constitutes a quorum to do business.

SECTION 4. CONDUCT OF MEETINGS. The chairman shall preside at all meetings and the meetings shall be conducted in accordance with Roberts' Rules of Order.

ARTICLE V

OFFICERS

SECTION 1. OFFICERS. The officers of the council shall be a chairman, vice-chairman and secretary.

SECTION 2. ELECTION, QUALIFICATIONS, AND TERM OF OFFICE. The officers shall be elected by the council members at their first meeting and shall serve the normal two years of the life of the council. Officers' terms shall be contingent upon their membership on the council. Should an officer cease to be a council member, his term as officer shall also cease and a majority of the council's membership shall elect a replacement for the remainder of his term.

SECTION 3. DUTIES OF OFFICERS. The duties of the officers shall be such as usually attached to such offices.

ARTICLE VI

FISCAL AFFAIRS AND PERSONNEL

SECTION 1. FISCAL AFFAIRS. All fiscal affairs including the receipt or disbursement of moneys shall be administered by the State Department of Health and

Environmental Sciences to which the council is allocated.

SECTION 2. PERSONNEL. Personnel necessary to carry out the council's purpose shall be provided by the Emergency Medical Services Bureau of the Hospital and Medical Facilities Division to which the council is allocated.

ARTICLE VII

AMENDMENTS

The council's by-laws may be altered, amended, or repealed and new by-laws adopted, in accordance with the Executive Reorganization Act of 1971 and other state and federal laws and regulations, by a majority of the members.

MISSOULA EMERGENCY SERVICES FOR HEALTH COUNCIL

(MESH Council)

BY-LAWS

ARTICLE I

NAME

The name of this Council is the Missoula Emergency Medical Services for Health Council, (MESH Council).

ARTICLE II

PURPOSE

The Council has been formed to plan for and coordinate local activities and resources to upgrade all aspects of emergency care of sick and injured, both on a day-to-day basis and in times of major disaster.

ARTICLE III

MEMBERSHIP

SECTION 1. MEMBERS. The Missoula Emergency Services for Health Council shall include representatives of organizations and institutions which provide or support emergency services in Missoula County. Such groups include: ambulance services, hospitals, American National Red Cross, Civil Defense, government officials, health planning groups, fire and police departments, physicians, nurses and others involved with the provision of emergency health care.

SECTION 2. MEMBERSHIP

a. CHARTER MEMBERS. The following organizations and institutions are charter members:

American Red Cross, Missoula-Mineral Chapter
Arrow Ambulance
Blackfoot Telephone Cooperative
Central Answering Service
Clinton Community Center
Clinton Volunteer Fire Department
Frenchtown Volunteer Fire Department
Hoerner-Waldorf Corporation (emergency vehicle)
Missoula City Engineers Office
Missoula City-County Health Department
Missoula City Fire Department
Missoula City Government
Missoula City Police Department
Missoula Civil Defense
Missoula Community Hospital
Missoula County Government
Missoula County Sheriff's Office
Missoula Crisis Center
Missoula General Hospital
Missoula Rural Fire Department
Missoula Search & Rescue Association
Missoula Technical Center
Montana Civil Defense, Region V
Montana Dental Society, District 2
Montana National Guard, Missoula units
Montana Nurses Association, District 1
Montana Pharmaceutical Association, District 3
Montana State Comprehensive Health Planning, C Agency
Montana State Forestry Division
Montana State Highway Patrol, Missoula office
Mountain Bell Telephone Company
Regional Planning Association
St. Patrick Hospital
S.O.S. Health Center
The Missoulian
U of M Student Health Center
U.S.F.S. Lolo National Forest
U.S.F.S. Region 1 Office
Western Montana Health Education Council
Western Montana Medical Society
Western Montana Regional Community Mental Health Center

b. Those organizations or institutions designated as charter members who do not appoint at least one representative by letter of authorization within 90 days after these By-laws are adopted, will be dropped from membership. However, at a later date, they may apply as new members.

c. NEW MEMBERS. Other providers of emergency services within Missoula County will be considered for membership upon petition, in writing, to the Executive Committee. Acceptance to membership will be made by a majority vote of the Council upon the recommendation of the Executive Committee.

d. MEMBER REPRESENTATION. Each member organization or institution shall designate its two voting representatives to the Council by letter.

SECTION 3. VOTING. Each organization or institution shall be entitled to no more than two votes, on any Council or committee action or election. Each designated, voting representative is entitled to only one vote. The designated voting representative may authorize a proxy vote in writing to another representative of his organization or institution.

SECTION 4. TENURE. There shall be no time limit on the length of membership on the Council; however, if more than two consecutive Council meetings are missed by the designated representatives or their authorized proxies, then membership of the organization or institution will be dropped.

ARTICLE IV

MEETINGS

SECTION 1. MEETINGS. Meetings shall be held semiannually and upon call of the chairman, or a majority of the Council members.

SECTION 2. NOTICE. Notice of all meetings shall be sent by mail to the entire membership by the secretary at least ten (10) days in advance of the meeting.

SECTION 3. QUORUM. A total of one-third (1/3) of the voting membership constitutes a quorum to do business.

SECTION 4. CONDUCT OF MEETING. The chairman shall preside at all meetings. The meetings shall be conducted in accordance with Robert's Rules of Order.

ARTICLE V

OFFICERS

SECTION 1. OFFICERS. The officers of the Council shall be a chairman, vice-chairman, secretary and standing committee chairmen.

SECTION 2. ELECTION. The chairman, vice-chairman and secretary shall be elected by the Council members at their first meeting of each calendar year and shall serve one-year terms.

SECTION 3. APPOINTMENT. Standing committee chairmen shall be appointed annually by the elected officers.

SECTION 4. QUALIFICATION AND TERM OF OFFICE. Officers' terms shall be contingent upon their membership on the Council. Should an elected officer cease to be a Council member, his term as officer shall also cease, and at the next regular meeting of the Council, a majority of the Council's membership shall elect a replacement for the remainder of his term. An officer may be re-elected.

SECTION 5. DUTIES OF OFFICERS. The duties of the officers shall be such as usually are attached to such officers.

ARTICLE VI

COMMITTEES

SECTION 1. EXECUTIVE COMMITTEE. The elected and appointed officers shall compose the Executive Committee.

a. The Executive Committee shall meet at least bi-monthly or upon call by the chairman or a majority of the committee.

b. A total of one-half (1/2) of the committee constitutes a quorum to do business.

c. The Executive Committee shall have power to conduct all business for the Council, in lieu of specific Council actions.

SECTION 2. STANDING COMMITTEES. The Standing Committees are: Communication, Disaster Planning, Education (Manpower and Training), Facilities (Resource Utilization) and transportation. Each Council member may participate in one or more Standing Committees.

SECTION 3. SPECIAL COMMITTEES. Special Committees may be appointed by the chairman as authorized by the Council or the Executive Committee.

ARTICLE VII

AMENDMENTS

The Councils' By-Laws may be altered, amended, or repealed or new By-Laws adopted by a majority of the members at any regular Council meeting, providing notification of the proposed By-Law change was sent to all Council members at least 10 days prior to the meeting.

ARTICLE VIII

ADOPTION

These By-Laws will go into effect immediately upon adoption.

Revised Codes of Montana

CHAPTER 36

69-3601. Establishment of service authorized -- costs -- petition. A county, city or town, acting through its governing body, may establish and maintain an ambulance service for such county, city or town. Any county, city or town may contract with any county, city or town to establish and maintain a joint ambulance service and to share the costs, such costs to be apportioned according to the benefits to accrue, the proportion to be paid by each to be fixed in advance by joint resolution by the respective governing bodies, if the governing body has received a petition signed by fifteen per centum (15%) of the electors registered to vote in the county, city or town at the last preceding general election, or in each of the counties, cities or towns wherein a joint ambulance service is being established. In addition to all other levies authorized by law, each county, city or town may levy an annual tax up to one (1) mill on the dollar of the taxable value of all taxable property within the county, city or town to defray the costs incurred in providing ambulance service.

69-3604. Findings and purposes. The public welfare requires the establishment of minimum uniform standards for the operation of ambulance services as defined in section 2 (69-3605) of this act, and the control, inspection,and regulation of persons engaged therein, in order to prevent or eliminate improper care that may endanger the health of the public. The regulation of establishments providing such service is in the interest of social well-being, and the health and safety of the state and all its people.

69-3605. Definitions. Unless the context requires otherwise, in this act:

(1) "Ambulance" means a privately or publicly owned motor vehicle that is especially designed, constructed, and equipped, which is maintained and used for the transportation of patients, including dual purpose police patrol cars and funeral coaches or hearses which otherwise comply with this act, but does not include a motor vehicle owned by, or operated under the direct control of the United States or this state of Montana.

(2) "Ambulance service" means a person who operates an ambulance.

(3) "Attendant" means a trained or otherwise qualified individual responsible for the operation of an ambulance and the care of the patients whether or not the attendant also serves as driver.

(4) "Attendant-driver" means a person who is qualified as an attendant and a driver.

(5) "Driver" means an individual who drives an ambulance.

(6) "Dual purpose police patrol car" means a vehicle, operated by a police department, which is equipped as an ambulance, even though it is also used for patrol or other police purposes.

(7) "Department" means the department of health and environmental sciences, provided for in Title 82A, chapter 6.

(8) "Board" means the board of health and environmental sciences, provided for in section 82A-605.

(9) "Patient" means an individual who is sick, injured, wounded, or otherwise incapacitated or helpless.

(10) "Person" means an individual, firm, partnership, association, corporation, company, group of individuals acting together for a common purpose, or organization of any kind, including a governmental agency other than the United States or this state.

69-3606. License required. (1) Every person conducting or operating an ambulance service shall procure a license issued by the department. A separate license shall be required for each establishment.

(2) Applications for a license shall be made in writing to the department on forms specified by the department.

(3) Licenses shall be granted as a matter of right, unless conditions exist as specified by this act which are grounds for a cancellation or denial of a license. The applicant may apply for a hearing and judicial review as specified by this act upon being denied a license or upon cancellation.

69-3607. Fee--term of license. (1) There shall be paid to the department with each application for a license or for renewal of a license, an annual license fee of five dollars ($5). The department shall deposit fees with the state treasurer to the credit of the state general fund.

(2) Each license shall expire on December 31 following its date of issue, unless cancelled for cause. Renewal may be obtained by paying the required annual license fee. The license shall not be transferable nor be applicable to any premises other than that for which originally issued.

69-3608. Cancellation or denial of licenses--procedure. (1) The department may cancel a license if its finds that the licensee has violated provisions of or rules adopted under this act, and the licensee has failed or refused to remedy or correct the violation. Submission to the department of an acceptable plan of correction within ten (10) days after receipt from the department of written notice of violation, and execution of an acceptable plan within the time prescribed in the written notice of approval of the plan by the department, is a bar to prosecution for violation.

(2) The department may not deny or cancel a license without:

(a) Delivery to the applicant or licensee of a written statement of the grounds for the denial or cancellation or the charge involved;

(b) An opportunity to answer at a hearing before the board to show cause, if any, why the license should not be denied or canceled. In this case, the licensee shall make written request to the board for a hearing within ten (10) days after notice of the grounds or charges has been received. If the board finds the violations of this act do not constitute a danger to the public health and would produce a hardship without equal or greater benefit to the public, the board may grant an exception to the licensee for a period not to exceed one (1) year, during which time a license may not be denied the licensee nor may his license be canceled. Subsequent exceptions may be granted the licensee, each for a period not to exceed one (1) year, and each after a hearing before the board.

(3) On cancellation of a license, the license certificate shall be returned to the department for destruction or deletion as the department may direct in its notice of cancellation.

(4) When the department furnishes evidence to the county attorney of a county in this state, the county attorney shall prosecute any person, firm, or corporation violating this act, or the rules adopted under this act.

69-3609. Rules and regulations -- co-operative agreements. (1) The department shall prescribe and enforce rules and regulations which are necessary to carry out the provisions of this act. These rules and regulations shall relate to ambulance equipment, training, operations (records), personnel, cleanliness, and insurance.

(2) No rules or regulations shall be effective until a public hearing has been held for review of the rules and regulations. Notice of the public hearing shall be sent by ordinary mail at least thirty (30) days before the hearing to all Montana licensed operators along with a copy of the proposed regulations.

(3) The department may enter into co-operative agreements with any of the state agencies or political subdivisions for the purpose of carrying out the provisions of this act, or any part thereof.

(4) Pursuant to the provisions of this act, required equipment in an ambulance which is maintained and regularly used for the transportation of patients shall consist of the minimal equipment for ambulances as adopted by the American college of surgeons, March, 1967, and required training shall be set at a level of advanced American Red Cross first aid or its equivalent. Nothing in this section shall preclude the use of any vehicle for the transportation of the injured in instances of emergency, need, or disaster situations, and the department shall not prescribe and enforce any rules and regulations related to ambulance equipment and training which exceed these requirements.

69-3610. Inspections. (1) The department shall make necessary investigations and inspections for enforcement of this act. The department shall make regular inspections as the rules of the department may direct, and special inspections which the department may consider necessary.

(2) The department has free access at all reasonable hours to the establishments listed and defined in section 69-3605, to make inspections.

69-3611. Authority of board to issue subpoenas. In any proceeding under this act, the board may administer oaths and issue subpoenas, summon witnesses, and take testimony of any person within the state of Montana.

69-3612. Penalty. Any person violating any provision of this act or regulation made hereunder shall be guilty of a misdemeanor, and, upon conviction, shall be fined not less than fifty dollars ($50) nor more than one hundred dollars ($100) for the first offense, and not less than seventy-five dollars ($75) nor more than two hundred dollars ($200) for the second offense; and for third and subsequent offenses, by a fine of not less than two hundred dollars ($200) nor more than five hundred dollars ($500) or imprisonment in the county jail not to exceed ninety (90) days.

69-3613. License fee--supersedes other fees. Payment of the license fee stipulated in this act shall be accepted in lieu of any and all existing state fees and charges for like purposes or intent which may be existent prior to the adoption of this act.

MONTANA AMBULANCE REGULATIONS

16-2.22(6)-S2270 EMERGENCY MEDICAL SERVICES, AMBULANCE SERVICE, LICENSING (1) Every person conducting or operating an ambulance service shall procure a license issued by the department. A separate license shall be required for each establishment.

(2) All communications concerning these regulations shall be addressed to the Montana State Department of Health and Environmental Sciences, Helena, Montana, 59601.

(3) General definitions:

"Ambulance" means any privately or publicly owned motor vehicle that is especially designed or constructed, and equipped, which is maintained and used for the transportation of patients, including dual purpose police patrol cars and funeral coaches or hearses which otherwise comply with the provisions of this rule, but does not include any such motor vehicle owned by or operated under the direct control of the United States or the state of Montana.

"Ambulance Service" means any person who operates an ambulance.

"Attendant" means a trained or otherwise qualified individual responsible for the operation of an ambulance and the care of patients whether or not the attendant also serves as driver.

"Attendant-Driver" means a person who is qualified as an attendant and a driver.

"Driver" means an individual who drives an ambulance.

"Dual Purpose Police Patrol Car" means a vehicle, operated by a police department, which is equipped as an ambulance even though it is also used for patrol or other police purposes.

"License Officer" means the director of the department of health or his designated official.

"Patient" means an individual who is sick, injured, wounded or otherwise incapacitated or helpless.

"Person" means any individual, firm, partnership, association, corporation, company, group of individuals acting together for a common purpose or organization of any kind, including any governmental agency other than the United States or the state of Montana.

(4) Licensing provisions.

(a) A separate license shall be required for each establishment.

(b) Applications for a license shall be made in writing to the department on forms specified by the department.

(c) Licenses shall be granted as a matter of right unless conditions exist as specified by the law which are grounds for cancellation or denial of a license. In the event a license is not granted, the applicant may apply for a hearing and judicial review as specified in this rule.

(d) There shall be paid to the department with each application for license or for renewal of a license an annual license fee of five dollars ($5.).

(e) Each license shall expire on December 31 following its date of issue unless cancelled for cause. Renewal may be obtained by paying the required annual license fee. The license shall not be transferable nor be applicable to any premises other than that for which originally issued.

(f) The director may cancel any license if he finds that the licensee has violated provisions or regulations of this act, and the licensee has failed or refused to remedy or correct the violation. Submission to the department of an acceptable plan of correction within ten (10) days after receipt of written notice of violation and execution of an acceptable plan within the time prescribed in the written notice of approval thereof by the director shall be a bar to prosecution for violation.

(g) The director shall not deny or cancel any license without:

(i) Delivery to the applicant or licensee of a written statement of the grounds therefor or the charge involved.

(ii) An opportunity afforded to the licensee to answer at a hearing before the board to show cause, if any, why the license should not be denied or cancelled. In such case, the licensee shall make written request to the director for a hearing within ten (10) days after notice of the grounds or charges has been received. If the board finds that the violations of provisions of this rule do not constitute a danger to the public health and would produce a hardship without equal or greater benefit to the public, the board may grant an exception to the licensee for a period of not to exceed one year, during which time a license would not be denied the licensee nor would his license be cancelled. Subsequent exceptions may be granted the licensee, each for a period not to exceed one year and each after a hearing before the board.

(h) Upon cancellation of a license, the license certificate shall be returned to the director for destruction or deletion as the director may order in his notice of cancellation.

(i) Any order made by the director after hearing, as provided herein, denying or cancelling any license may be reviewed by application for writ of review (certiorari), commenced in the district court of the county in which the licensed premises is located, within ten (10) days from the date of receipt of notice in writing of the director's order of denial or cancellation.

(j) Whenever the department shall furnish evidence to the county attorney of any county in this state, the county attorney shall prosecute any person, persons, firm or corporation violating any provisions of this rule.

(5) Ambulances and ambulance equipment.

(a) Effective April 1, 1972, all new vehicles purchased, whether as a replacement or in the creation of a new ambulance service, must conform to current specifications as set forth below.

(i) The ambulance vehicle should have space for a driver, attendant and two litter patients. The patients should be so positioned in the vehicle that at least one can be given life-support in transit. The vehicle should be able to carry equipment and medical supplies for safeguarding personnel and patients under hazardous conditions, and for maximum emergency medical care, both outside the vehicle and in transit. The emergency vehicle should be designed to provide maximum safety and comfort for the patient.

(ii) Minimum space between the head of the litter and the bulkhead of the vehicle should be at least 25 inches, including a seat for an attendant so positioned that he can provide respiratory care and resuscitation.

(iii) Minimum space at the foot of the litter should be 15 inches to accommodate traction splints and an attendant.

(iv) Minimum space between litters should be 25 inches so that an attendant can move between litters and kneel to perform external cardiac compression and other medical functions.

(v) While a height of 60 inches is preferable throughout the interior of the emergency vehicle, the minimum height should be at least 54 inches from floor to ceiling. This minimum height provides approximately 39 inches from the top of the litter to the ceiling, and allows the attendant enough room to kneel beside the patient and to use maximum body weight in performing cardiac compression.

(b) All ambulances must carry the equipment described in the Minimum Equipment List for Ambulances, 1967, as recommended by the American College of Surgeons, or equipment which is equivalent.

Minimum Equipment List for Ambulances, 1967

1. Hinged half-ring lower extremity splint with webbing ankle hitch.

2. Two or more padded boards 4½ feet long by 3 inches wide, and two or more similar padded boards 3 feet long by 3 inches wide, of material comparable to four-ply wood, for coaptation splinting of fracture of leg or thigh.

3. Two or more padded 15-inch by 3-inch wood or cardboard splints for fractures of the forearm.

4. Short and long spine boards with accessories.

5. Oxygen tanks and masks of assorted sizes.

6. Hand-operated bag-mask resuscitation unit with adult, child and infant size masks, a unit which can be attached to oxygen supply being preferred.

7. Simple suction apparatus with catheter.

8. Mouth-to-mouth, two-way resuscitation airways for adults and children.

9. Oropharyngeal airways.

10. Mouth gags made of three tongue blades taped together and padded.

11. Universal dressing, approximately 10 inches by 36 inches, packaged folded to 10 inches by 9 inches.

12. Sterile gauze pads.

13. One, two and three inch adhesive tape on cylinder.

14. Six-inch by 5-yard soft roller-type bandages.

15. Triangular bandages.

16. Safety pins, large size.

17. Shears for bandages.

18. Several pillows.

(c) Effective as of January 1, 1973, all ambulance services must have two-way mobile communication equipment capable of operating at least within the normal emergency service area. On all new radio equipment secured after January 1, 1973, all radio frequencies shall be compatible with the Montana Emergency Medical Services Plan.

(6) Personnel, levels of training.

(a) All personnel operating an ambulance service, including ambulance attendants and ambulance drivers must be trained.

(b) Effective April 1, 1972, all ambulance personnel must be trained and hold current certification at the level of Advanced American Red Cross First Aid or its equivalent.

(c) Effective April 1, 1972, there must be at least one attendant in addition to the driver on every ambulance call.

(7) Maintenance and operations.

(a) Effective April 1, 1972, it is required that reasonable maintenance of all ambulance vehicles be maintained and that records be kept to demonstrate such maintenance has been accomplished.

(b) A level of sanitation which is suitable for the transportation of patients from the standpoint of health and safety must be maintained.

(c) Effective April 1, 1972, in addition to the information supplied for licensing, all ambulance services must keep trip reports on each patient, and make available for inspection such reports, stating the name of attendants, type of emergency, response time, type of injury and type of first aid administered on each emergency.

(d) All persons authorized by this rule shall have free access at all reasonable hours to any of the establishments licensed for the purpose of determining compliance with this rule.

(8) Requirements, state and local ordinances.

(a) All ambulances and ambulance services must comply with all state and local laws concerning the operation of ambulances and ambulance services.

(9) Insurance.

(a) Effective April 1, 1972, all ambulance services will be properly covered by liability insurance with a minimum coverage of not less than $100,000 - $300,000 - $25,000.

Provided here are the Revised Codes of Montana which relate to emergency health care. Due to the length of the codes, only those of special interest are provided in full text. The remainder are listed by RCM title and code number.

RCM 24-128. Protective devices.

RCM 75-7003. School bus driver qualifications:

Any driver of a school bus shall be qualified to drive such school bus by compliance with the following requirements:

(1) he is not less than twenty-one (21) years of age;
(2) he is of good moral character;
(3) he is the holder of a chauffeur's license;
(4) he has filed with the district a satisfactory medical examination report signed by a licensed physician of the State of Montana on a blank provided by the superintendent of public instruction;
(5) he has completed a standard first-aid course and holds a valid standard first-aid certificate from an authorized instructor. The issuance of such certificate shall be governed by rules and regulations established by the superintendent of public instruction, provided that such rules may suspend this requirement for a reasonable period of time where there has been an inadequate opportunity for securing the first-aid course and certificate;
(6) he has complied with any other qualifications established by the board of education; and
(7) he has filed with the county superintendent a certificate from the trustees of the district for which the school bus is to be driven certifying compliance with the several driver qualifications enumerated in this section.

RCM 92-612. Liability for treatment of malpractice in case of hospital service.

Disasters

RCM 11-3266. Department of Public Safety--police and fire departments.

RCM 11-4301. Definitions. An emergency shall be:

RCM 11-4304. Council's resolutions--inclusion of facts of disaster.

RCM 11-4305. Estimation of expenses and levying of tax.

RCM 11-4306. Emergency tax surplus.

RCM 77-107. Governor may order and organize militia.

RCM 77-151. Claims against National Guard appropriations.

RCM 77-1302. Policy and purpose.

RCM 77-1303. Definitions (Civil Defense).

RCM 77-1307. Duties of director.

RCM 77-1308. Mutual-aid arrangements.

RCM 77-1309. Local organization for Civil Defense.

RCM 77-1401. Short title.

RCM 77-1402. Governor authorized to join in the interstate civil defense and disaster compact.

RCM 77-1403. Form of compact.

RCM 77-1506. Proclamation of emergency--governor's powers during emergency.

RCM 77-1404. Governor authorized to execute supplemented agreements.

RCM 77-1502. Legislative findings--policy of state.

RCM 77-1503. Definition of terms (emergency).

RCM 77-1504. State emergency resource planning.

RCM 77-1505. Governor's powers and duties under act. Committee--composition.

RCM 77-1507. Judicial inquiry as to emergency proclamation and facts.

RCM 79-2501. Governor may authorize expenditure in case of emergency or disaster.

Emergency Vehicles

RCM 31-118. Definitions. The following words and phrases when used in this act shall, for the purpose of this act, have the meanings respectively ascribed to them in sections 31-119 to 31-124.

RCM 31-119. Vehicle-motor vehicle-farm tractor-school bus. (b) Motor vehicle. Every vehicle which is self-propelled and every vehicle which is propelled by electric power obtained from overhead trolley wires, but not operated on rails.

RCM 31-120. Person-operator-chauffer-owner. (c) Chauffer. Every person who is employed by another for the principal purpose of of driving a motor vehicle and every person who drives a school bus transporting school children or any motor vehicle when in use for the transportation of persons or property for compensation, but shall not include persons driving farm trucks or hauling farm products for producers of said farm products.

RCM 31-125. Operators and chauffers must be licensed. (a) No person, except those hereinafter expressly exempted, under section 31-125, shall drive any motor vehicle upon a highway in this state unless such person has a valid Montana license as an operator or chauffer under the provisions of this act. -----

RCM 31-127. What persons shall not be licensed. The board shall not issue any license hereunder:

2. To any person, as a chauffer, employed by another for the principal purpose of driving a motor vehicle when in use exclusively for the transportation of property for compensation, who is under the age of eighteen (18) years, nor any person, as a chauffer, who is employed by another for the principal purpose of driving a motor vehicle transporting passengers for hire or transporting school children, who is under the age of twenty-one (21) years; -----

RCM 32-2102. Definitions -----authorized emergency vehicle-----
(e) Authorized Emergency Vehicle Vehicles of the fire department, fire patrol, police vehicles, and such ambulances and emergency vehicles of municipal departments or public service corporations or of persons as are designated or authorized by the board.

RCM 32-2128. Authorized emergency vehicles. (a) The driver of an authorized emergency vehicle, when responding to an emergency call or when in the pursuit of an actual or suspected violator of the law or when responding to but not returning from a fire alarm, may exercise the privileges set forth in this section, but subject to the conditions herein stated. (b) The driver of an authorized emergency vehicle may:

1. Park or stand, irrespective of the provisions of this act;
2. Proceed past a red or stop signal or stop sign, but only after slowing down as may be necessary for safe operation;
3. Exceed the speed limits so long as he does not endanger life or property;
4. Disregard regulations governing direction of movement or turning in specified directions.

(c) The exemptions herein granted to an authorized emergency vehicle shall apply only when such vehicle is making use of audible and visual signals meeting the requirements of section 129 (32-21-132) of this act, except that an authorized emergency vehicle operated as a police vehicle need not be equipped with or display a red light visible from in front of the vehicle (d) The foregoing provisions shall not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons, nor shall such provisions protect the driver from the consequences of his reckless disregard for the safety of others.

RCM 32-21-132. Audible and visual signals on vehicles.
(a) Every authorized emergency vehicle shall, in addition to any other equipment and distinctive markings required by this act, be equipped with a siren, exhaust whistle or bell capable of giving an audible signal. (b) Every authorized emergency vehicle shall, in addition to any other equipment and distinctive markings required by this act, be equipped with signal lamps mounted as high and as widely spaced laterally as practicable, displaying to the front two (2) alternately flashing red lights located at the same level and to the rear two (2) alternately flashing red lights located at the same level, and these lights shall

have sufficient intensity to be visible at five hundred (500) feet in normal sunlight.

RCM 32-21-145. Horns and warning devices. (b) No vehicle shall be equipped with nor shall any person use upon a vehicle any siren, whistle, or bell, except as otherwise permitted in this section. (d) Any authorized emergency vehicle may be equipped with a siren, whistle, or bell, capable of emitting sound audible under normal conditions from a distance of not less than five hundred (500) feet and of a type approved by the board, but such siren shall not be used except when such vehicle is operated in response to an emergency call or in the immediate pursuit of an actual or suspected violator of the law, in which said latter events the driver of such vehicle shall sound said siren when reasonably necessary to warn pedestrians and other drivers of the approach thereof.

RCM 32-2175. Operation of vehicles on approach of authorized emergency vehicles. (a) Upon the immediate approach of an authorized emergency vehicle making use of audible and visual signals meeting the requirements of section 129 (32-21-132) of this act, or of a police vehicle properly and lawfully making use of an audible signal only, the driver of every other vehicle shall yield the right of way and shall immediately drive to a position parallel to, and as close as possible to, the right-hand edge or curb of the roadway clear of any intersection and shall stop and remain in such position until the authorized emergency vehicle has passed, except when otherwise directed by a police officer or highway patrolman (b) This section shall not operate to relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons using the highway.

Public Access

RCM 94-35-221.1. Failure to relinquish party line telephone for emergency call--penalty.

RCM 94-35-221.2. Lack of knowledge as defense--emergency as defense

RCM 94-35-221.3. False pretext of emergency--penalty.

Good Samaritan Act

RCM 17-410. Emergency care rendered at scene of accidents. Any person licensed as a physician and surgeon under the laws of the state of Montana, or any other person, who in good faith renders emergency care or assistance, without compensation, at the scene of an emergency or accident, shall not be liable for any civil damages for acts or omissions other than damages occasioned by gross negligence or by willful or wanton acts or omissions by such person in rendering such emergency care.

Stopping at the Scene of a Vehicle Accident

RCM 94-35-269. ". . . Who knowingly fails to give assistance to a person who he has injured shall be guilty of a misdemeanor."

Note: Persons are required to stop only if they have been involved in the accident.

82-3325. Powers and duties of department of administration regarding communications. The department of administration shall:

(1) Provide communication services to all agencies of state government. The state communications system shall be capable of passing voice, video, data, written information, and other forms of communication to and from distant points. The department shall adopt adequate rules for the use of any communications equipment and facilities now in use or hereafter made available;

(2) Exercise general supervision over all existing communications systems for all agencies of state government;

(3) Plan, review, and approve any additional installations of communications equipment and systems for all agencies of state government. In approving the installation of additional communications equipment or systems, the department shall first consult with and consider the recommendations and advice of the executive heads of the various state agencies;

(4) Approve standards and procedures for selection, acquisition, and operation of communication equipment;

(5) Ensure that all communications equipment is properly maintained. The department is authorized to contract the equipment maintenance if it is in the state's best interest. The department shall maintain cost records and bill agencies for services rendered;

(6) Provide assistance to the legislature, governor, and state agencies relative to state and interstate communication matters;

(7) Provide a means whereby political subdivisions of the state may utilize the state communications system, upon such terms and under such conditions the department may establish;

(8) Accept federal funds granted by Congress or by executive order for any purposes of this section, as well as gifts and donations from individuals and private organizations or foundations;

(9) Assist in providing interconnecting telecommunications relays among facilities of the educational broadcasting commission.

History: En. Sec. 3, Ch. 230, L. 1971; amd. Sec. 6, Ch. 215, L. 1974; amd. Sec. 86, Ch. 326, L. 1974.

Compiler's Notes

This section was amended twice in 1974, once by Ch. 326, and once by Ch. 215. Neither amendatory act mentioned or entirely incorporated the changes made by the other. Since the amendments do not appear to conflict, the compiler has made a composite section embodying the changes made by both amendments.

Chapter 326, Laws of 1974, substituted references to "department of administration" throughout the section for references to "division of communications"; substituted "section" for "act" in subdivision (8); deleted "the division of" in subdivision (9) before "educational television"; and made minor changes in punctuation and phraseology.

Repealing Clause

Section 7 of Ch. 215, Laws 1974 read "Sections 75-5710 and 75-5711, R. C. M. 1947, are repealed."

Amendments

Chapter 215, Laws of 1974, substituted present subdivision (9) for a subdivision which read "To accept and provide for the technical transmission of programs provided by the division of educational television."

Effective Date

Section 8 of Ch. 215, Laws 1974 provided the act should be in effect from and after its passage and approval. Approved March 14, 1974.

82-3326. Repealed.

Repeal

Section 82-3326 (Sec. 4, Ch. 230, L. 1971), relating to the advisory council on communications, was repealed by Sec. 1, Ch. 164, Laws 1973.

82-3327, 82-3328. Repealed.

Repeal

Sections 82-3327 and 82-3328 (Secs. 5, 6, Ch. 230, L. 1971), relating to the transfer of funds, equipment, facilities and employees to the division of communications, were repealed by Sec. 103, Ch. 326, Laws of 1974.

82-3329. Bases of director's decisions. It is incumbent on the department of administration to base all decisions pertinent to Montana's state communication services on the factors of cost, quality of service, availability of service, and ability to maintain the system.

History: En. Sec. 7, Ch. 230, L. 1971; amd. Sec. 87, Ch. 326, L. 1974.

Amendments

The 1974 amendment substituted "department of administration" for "director"; and made a minor change in punctuation.

82-3330. Co-operation with other government agencies not limited. This act shall not be construed so as to prohibit or limit a state agency from availing itself of connection to and co-operation with other state and federal agencies for the purpose of communications and information gathering and distributing services.

History: En. Sec. 8, Ch. 230, L. 1971.

82-3331. Exemption of law enforcement communications system—exception. The provisions of this act shall not apply to the law enforcement communications system, or its successor, except as to the provisions dealing with the purchase, maintenance, and allocation of communication facilities. However, the department of justice shall co-operate with the department of administration to co-ordinate the communications networks of the state.

History: En. Sec. 9, Ch. 230, L. 1971; amd. Sec. 88, Ch. 326, L. 1974.

Amendments

The 1974 amendment substituted "department of justice" in the second sentence for "law enforcement communications committee"; substituted "department of administration" in the second sentence for "division of communications"; and made minor changes in punctuation and phraseology.

Appendix A-7

BILL NO.

INTRODUCED BY SENATOR JOE ROBERTS

A BILL FOR AN ACT ENTITLED: "AN ACT TO CREATE AN EARMARKED ACCOUNT FOR LOCAL EMERGENCY MEDICAL SERVICE PROGRAMS."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Earmarked account for local emergency medical services. There is created an emergency medical services account in the earmarked revenue fund. The commissioner of insurance shall deposit into the emergency medical services account at the end of each fiscal year a sum equal to ten percent (10%) of the life and disability premium tax collected annually by the state. This account is assigned to the department of health and environmental sciences for the purpose of developing and implementing emergency medical service programs in local communities in Montana. The purpose of emergency medical services is described in sections 69-7001 and 69-7002.

UNITED STATES OF AMERICA,)
State of Montana) ss.

I, FRANK MURRAY, Secretary of State of the State of Montana, do hereby certify that the following is a true and correct copy of HOUSE Bill No. 72, Chapter No. 84, Montana Session Laws of 1975, enacted by the Forty-fourth Legislature of the State of Montana, approved by Thomas L. Judge, Governor of said State, on the nineteenth day of March, 1975, and effective July 1, 1975.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the great Seal of said State.

Done at the City of Helena, the Capital of said State, this 21st day of March, 1975.

Frank Murray

Frank Murray
Secretary of State

……

CHAPTER NO. 84
MONTANA SESSION LAWS 1975
HOUSE BILL NO. 72

AN ACT PROVIDING FOR THE CERTIFICATION OF EMERGENCY MEDICAL TECHNICIANS; PROVIDING FOR THE ACTS OF CARE THEY MAY PERFORM; AND PROVIDING FOR THE ADOPTION OF RULES BY THE BOARD OF MEDICAL EXAMINERS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. There is a new R.C.M. section numbered 69-7003 that reads as follows:

69-7003. Findings and purpose. The legislature finds and declares that prompt and efficient emergency medical care of the sick and injured at the scene and during transport to a health care facility is an important ingredient necessary for reduction of the mortality and morbidity rate during the first critical minutes immediately after an accident or the onset of an emergent condition and that a program for emergency medical technicians is required in order to provide the safest and most efficient delivery of emergency care.

Section 2. There is a new R.C.M. section numbered 69-7004 that reads as follows:

69-7004. Definitions. As used in this act:

(1) "Emergency medical technician -- basic" means personnel of volunteer or nonvolunteer police, fire, rescue, ambulance, or emergency services who have been specially trained in emergency care in a training program approved by the state board of medical examiners and certified by said board as having demonstrated a level of competence suitable to treat victims of injury or other emergent condition.

(2) "Emergency medical technician -- advanced" means personnel of volunteer or nonvolunteer police, fire, rescue, ambulance, or emergency services who have been specially trained in an advanced emergency medical technician training program approved by the state board of medical examiners and certified by the board as having demonstrated an advanced level of competence suitable to treat victims of severe injury or other serious emergent condition.

(3) "Board" means the board of medical examiners, department of professional and occupational licensing.

Section 3. There is a new R.C.M. section numbered 69-7005 that reads as follows:

69-7005. Acts allowed -- basic. An emergency medical technician -- basic may perform any of the following:

(1) Render emergency care, rescue, and resuscitation services;

(2) Provide emergency transportation;

(3) Perform cardiopulmonary resuscitation in the pulseless, nonbreathing patient; and

(4) Such other acts as the board may allow by rule.

Section 4. There is a new R.C.M. section numbered 69-7006 that reads as follows:

69-7006. Acts allowed -- advanced. An emergency medical technician -- advanced may perform any of the following:

(1) Render emergency care, rescue, and resuscitation services;

(2) While caring for patients during training at a hospital, ambulance, or other medical facility, administer parenteral medications under the direct supervision of a physician or a registered nurse;

(3) Perform cardiopulmonary resuscitation and defibrillation in a pulseless, nonbreathing patient; and

(4) Such other acts as the board may allow by rule.

Section 5. There is a new R.C.M. section numbered 69-7007 that reads as follows:

69-7007. Additional acts by order. When an emergency medical technician -- advanced has voice contact with a physician and upon the physician's order, or is functioning under formally adopted written standing orders of a local hospital medical staff, the following acts may be performed based upon such direct or indirect order:

(1) Administer intravenous saline or glucose solutions;

(2) Perform gastric or tracheal suction by intubation;

(3) Administer parenteral injections of drugs approved by the board; and

(4) Such other acts as the board may allow by rule.

Section 6. There is a new R.C.M. section numbered 69-7008 that reads as follows:

69-7008. Rules. The board, after consultation with the department of health and environmental sciences, the department of intergovernmental relations, and other appropriate departments, associations, and organizations, shall adopt rules of the board implementing this act, including, but not limited to, training and certification of personnel, administration of drugs, and other acts as allowed herein.

Section 7. There is a new R.C.M. section numbered 69-7009 that reads as follows:

69-7009. Consent. No emergency medical technician may be subject to civil liability for failure to obtain consent in performing acts as authorized herein to any individual regardless of age where the patient is unable to give consent and there is no other person present legally authorized to consent; provided, that such acts are in good faith and without knowledge of facts negating consent.

Section 8. There is a new R.C.M. section numbered 69-7010 that reads as follows:

69-7010. Construction of act. Nothing in this act shall be construed to detract from the powers granted to the department of health and environmental sciences to regulate ambulance service as provided for in Title 69, chapter 36, R.C.M. 1947.

APPENDIX B

Emergency Health Services Resources (3 pages) B-1

Specialties (4 pages) B-2

Ambulance Service Data (6 pages) B-3

Emergency Capabilities - Montana Hospitals (6 pages) B-4

Mental Health Services Data B-5

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Ambulance Trip Report B-7

Civil Defense "Mutual Aid Agreement" B-8

Selected Demographic Characteristics, Population Projections & Sex Distribution B-9

Emergency Medical Related Deaths B-10

Accidental Death Rates (7 pages) B-11

Resident Deaths Due to Acute Ischemic Heart Disease, by region B-12

EMERGENCY HEALTH SERVICES RESOURCES

REGION I

Counties	Pop. 1973	Sq.M	Improved Roads	Total Roads	Tax Evaluation (1,000)	General Hospital Beds	M.D. & DO	RNs	LPNs	Amb. Attd's	EMTs	Nurse Anes.	Phys. Ther.	Phys. Ass't
Beaverhead	8,000	5,580	279.9	1768.2	15,369	31	4	22	9	36	6	0	1	
Deer Lodge	15,800	741	162.1	359.1	18,393	395	9	121	78	36	0	1	1	
Flathead	40,600	5,280	444.8	2089.8	51,253	134	66	176	69	71	29	1	2	
Granite	2,600	1,737	105.1	688.9	5,637	10	1	9	5	32	19		1	
Lake	15,600	1,655	242.7	1255.8	20,817	95	7	70	30	46	18	6	2	
Lincoln	17,700	3,728	473.5	2207.4	18,672	34	8	53	10	64	49	2	1	1
Madison	5,600	3,541	218.1	1454.3	7,811	31	2	33	14	57	23		0	1
Mineral	3,300	1,223	126.0	889.7	3,856	9	0	11	7	12	0			
Missoula	61,200	2,624	448.2	1817.9	65,646	399	111	402	195	34	12	5	13	0
Powell	6,800	2,340	141.0	956.2	8,721	35	3	17	12	7	0			
Ravalli	16,900	2,388	264.8	1512.2	16,481	32	13	71	41	54	21	2	2	0
Sanders	7,400	2,819	247.4	1703.7	14,815	22	2	30	16	22	3	2	1	0
Silver Bow	42,200	716	268.4	596.1	50,395	222	37	302	118	17	8	5	5	
TOTAL	243,700	34,372	3,422.0	17299.3	297,866	1,449	263	1,317	604	488	188	24	29	2

EMERGENCY HEALTH SERVICES RESOURCES

REGION 2

Counties	Pop. 1973	Sq.M	Improved Roads	Total Roads	Tax Evaluation (1,000)	General Hospital Beds	M.D. & DO	RNs	LPNs	Amb. Attd's	EMTs	Nurse Anes.	Phys. Ther.	Phys. Ass't
Blaine	6,800	4,279	168.4	2452.9	11,918	~~22~~	3	25	10	4	2	0		
Broadwater	2,700	1,245	127.8	904.1	5,466	23	3	16	2	7	0	0		
Cascade	83,700	2,673	729.8	2148.9	84,555	483	90	498	171	22	13	9	11	
Chouteau	5,900	3,936	195.1	3119.7	22,705	28	2	3	4	22	0	0		
Gallatin	35,800	2,540	392.8	1712.4	37,321	164	44	204	70	65	19	4	4	
Glacier	11,400	3,006	847.6	1150.2	21,306	76	2	42	16	27	22			1
Hill	17,600	2,946	244.7	3660.6	21,884	148	12	112	55	22	10	3	2	1
Jefferson	6,700	1,654	206.9	884.2	8,024	60	2	17	23	28	19			1
Lewis &Clark	35,500	3,515	453.7	1671.3	39,947	306	48	279	100	42	10	4	6	
Liberty	2,500	1,459	66.2	1633.4	7,261	11	1	8	7	7	2		1	1
Meagher	2,200	2,354	123.1	869.1	5,335	8	1	8	3	9	0			
Park	11,800	2,631	241.6	1103.3	19,956	54	12	63	24	17	6	2		
Pondera	7,200	1,654	198.4	1282.2	16,373	50	4	45	17	15	13	3		
Teton	6,600	2,310	193.9	1584.0	14,434	22	3	39	11	20	20			
Toole	5,500	1,965	160.1	1549.9	17,213	30	2	19	13	34	6			
TOTAL	241,900	38,167	4350.1	25726.2	333,698	1,485	229	1,378	526	341	142	25	24	4
Yell. Nat'l Park (Part)		269												
TOTAL LAND		38,436												

EMERGENCY HEALTH SERVICES RESOURCES

REGION 3

Counties	Pop. 1973	Sq.M	Improved Roads	Total Roads	Tax Evaluation (1,000)	General Hospital Beds	M.D. & DO	RNs	LPNs	Amb. Attd's	EMTs	Nurse Anes.	Phys. Ther.	Phys. Ass't
Big Horn	11,100	5,055	338.0	1559.8	15,324	50	1	23	12	27	13	0		
Carbon	7,800	2,094	224.3	1017.6	16,202	28	4	26	16	34	13	2		
Carter	1,800	3,313	68.5	910.0	5,295	16	1	9	7	6	0	0		
Custer	11,300	3,775	246.2	1166.3	15,973	205	17	49	28	16	8	4	2	
Daniels	3,100	1,443	110.8	969.1	5,920	20	2	7½	3	5	0	0		
Dawson	10,900	2,380	231.1	1224.6	17,134	46	6	28	12	27	17	0	1	
Fallon	3,800	1,633	144.9	942.8	20,714	19	2	5½	8	4	2	0		
Fergus	12,700	4,253	317.4	2009.5	21,736	51	8	65	34	37	0	2		
Garfield	1,800	4,812	142.5	1390.3	6,240	8	½	2½	2	10	0	0		
Golden Valley	1,000	1,180	46.9	675.5	3,602		0	2	1	0	0			
Judith Basin	2,600	1,880	106.3	1129.5	9,306		0	9	0	17	0			
McCone	2,800	2,652	167.4	1892.8	11,430	20	1	3½	0	9	0			
Musselshell	4,100	1,887	130.9	1116.3	8,914	17	2	14	6	42	42	1		
Petroleum	600	1,672	63.1	725.7	2,625		0	0	0	3	1			
Phillips	5,200	5,287	235.6	1961.5	11,695	30	2	7	7	11	0			
Powder River	2,100	3,298	130.2	1131.4	18,044		1	1	0	7	5			
Prairie	2,000	1,739	79.6	781.1	5,197	8	1	9½	1	7	0			
Richland	9,700	2,103	182.1	1433.6	20,408	55	5	23	24	12	8	1	1	
Roosevelt	10,000	2,399	315.7	1833.5	16,349	89	6	24	21	18	2	2		
Rosebud	6,600	5,042	281.7	1672.2	19,612	26	2	7½	11	14	9	1		1
Sheridan	5,500	1,720	142.6	1474.8	11,984	26	2	14	8	8				
Stillwater	4,800	1,794	209.0	1080.6	9,595	27	2	21	11	28				1
Sweet Grass	3,000	1,849	103.1	706.8	7,068	17	2	1	1	4	3	1		
Treasure	1,100	997	67.6	401.1	3,049		0	2		8	6			
Valley	13,300	5,104	245.6	2256.8	18,437	68	4	15½	18	4	4	3	1	
Wheatland	2,500	1,425	106.2	682.6	5,192	25	1	10	5	26	24			
Wibaux	1,400	891	55.1	647.5	7,920					10				
Yellowstone	92,300	2,666	731.2	2168.4	118,218	388	145	590	156	52	20	13	7	
TOTAL	234,900	74,343	5,223.6	34961.7	433,183	1,239	217½	969½	392	446	177	30	12	2

Exhibit B-1

Appendix B-2

KEY TO SPECIALTIES

A	Allergy
Anes	Anesthesiology
Bact	Bacteriology
C	Cardiovascular Disease
CP	Clinical Pathology
D	Dermatology
GE	Gastroenterology
G	Gynecology
HAd	Hospital Administration
Ind	Industrial Practice
I	Internal Medicine
NS	Neurological Surgery
N	Neurology
OB	Obstetrics
OBG	Obstetrics, Gynecology
Oph	Ophthalmology
OALR	Ophthalmology, Otology, Laryngology, Rhinology
Or	Orthopedic Surgery
ALR	Otology, Laryngology, Rhinology
Path	Pathology
Pd	Pediatrics
PM	Physical Medicine
PL	Plastic Surgery
Pr	Proctology
P	Psychiatry
PN	Psychiatry, Neurology
PH	Public Health
Pul	Pulmonary Diseases
R	Roetgenology, Radiology
S	Surgery
TS	Thoracic Surgery
U	Urology

MEDICAL SPECIALIST

REGION I

Counties	Anes	I	NS	OBG	OALR	Or	Path	PL	R	S	TS	U	GP	D	N	Pd	Pr	A
Beaverhead													3					
Deer Lodge				1					1	2			9					
Flathead	1	4		5	4	2	2		4	4	1	2	26			1		
Granite													1					
Lake										1			11					
Lincoln										1			7					
Madison									1				4					
Mineral													1					
Missoula	6	23	1	8	9	8	3		5	13	4		14	2	1	9		
Powell													4					
Ravalli		1			1		1			1			4					
Sanders				1						1			7					
Silver Bow	1	4		4	5	2	2		3	7	2		8			1		
TOTAL	8	32	1	19	19	12	8	0	14	30	7	2	99	2	1	11	0	0

SOURCE -- CHP 1973

MEDICAL SPECIALIST

REGION 2

Counties	Anes	I	NS	OBG	OALR	Or	Path	PL	R	S	TS	U	GP	D	N	Pd	Pr	A
Blaine													5					
Broadwater													3					
Cascade	8	9	3	8	9	6	4		7	13	1	4	19	2		4		
Chouteau													2					
Gallatin		3		2	3	1	1		1	5			22				1	
Clacier													10					
Hill		3		2			1		1	2			4			1		
Jefferson													2					
Lewis & Clark	2	4		3	5	3	3		4	10		2	7	1		4		
Liberty													2					
Meagher													2					
Park										3	1		7					
Pondera													3					
Teton													3					
Toole													5					
TOTAL	10	19	3	15	17	10	9	0	13	33	2	6	96	3	0	9	1	0

SOURCE -- CHP 1973

MEDICAL SPECIALIST

REGION 3

Counties	Anes	I	NS	OBG	OALR	Or	Path	PL	R	S	TS	U	GP	D	N	Pd	Pr	A
Big Horn													5					
Carbon													4					
Carter													1					
Custer		2		1	3		1		1	3			3					
Daniels													2					
Dawson										2			4					
Fallon													2					
Fergus									1	2			8					
Garfield																		
Golden Valley																		
Judith Basin													1					
McCone													1					
Musselshell													2					
Petroleum																		
Phillips													2					
Powder River													1					
Praire																		
Richland							1			2			5					
Roosevelt										1			9					
Rosebud													4					
Sheridan				1									2					
Stillwater													4					
Sweet Grass													2					
Treasure																		
Valley				1	1								4					
Wheatland													2					
Wibaux																		
Yellowstone	10	21	4	9	12	10	3	1	8	20	2	6	25	3	2	9		1
TOTAL	10	23	4	12	16	10	5	1	10	30	2	6	93	3	2	9	0	1

SOURCE -- CHP 1973

AMBULANCE SERVICE DATA

					Ambulance Personnel Level of Training					
County	Ambulance Service	Type of Service	Type of Amb. (Year & Make)	State Design Standards Met	No.	Advanced Red Cross	EMT-A	Radio Equip.	Cardiac Monitor	Extrl. Equip.
Beaverhead	Dillon	Volunteer	1969 Coach		12	9	3	39.82		
	Lima	Volunteer	1965 Wagon		14	14	0	39.82		
	Wisdom	Volunteer	1974 Van		10	7	3			
Deer Lodge	Anaconda	Local Gvt.	1974 Modular	X	24	24	0	155.280		
		Local Gvt.	1967 Coach					155.280		
	Opportunity	Volunteer	1962 Wagon		12	12	0	155.280		
Flathead	Columbia Falls	Volunteer	1970 Coach		17	16	1	155.280		X
	Whitefish	Volunteer	1970 Coach		25	5	20	155.280		X
	Search & Rescue	Volunteer	1967 Van		17	17	0	39.82		X
	Kalispell	Local Gvt.	1972 Convers.		12	4	8	155.280		X
		Local Gvt.	1970 Coach					155.280		
Granite	Drummond	Volunteer	1972 Suburban		18	7	11	155.280		X
			1960 Wagon					155.280		
	Philipsburg	Volunteer	1968 Coach		14	6	8	155.280		
Lake	Ronan	Local Gvt.	1974 Van	X	18	10	8	39.82		
			1954 Coach							
	Polson	Private	1969 Van		17	10	7	155.280		X
	St. Ignatius	Volunteer	1974 Van	X	11	8	3	39.82		
Lincoln	Libby	Volunteer	1971 Van		25	5	20	155.280		X
								& 39.82		
	Eureka	Volunteer	1958 Coach		10	10		155.280		
			1967 Suburban					155.280		
	Troy	Volunteer	1971 Van		29	0	29	155.280		
Madison	Ennis	Volunteer	1973 Van		21	1	20	155.280		X
			1961 4x4					39.82		X
	Melrose	Volunteer	1965 Wagon		12	9	3	C.B.		
	Sheridan	Volunteer	1964 Coach		24	24	0	39.82		
Mineral	Superior	Volunteer	1973 Van		12	12	0	39.82		
Missoula	Missoula	Private	1974 Van	X	20	8	12	155.280		
			1973 Van	X				155.280		
			1970 Coach					155.280		
	Seeley Lake	Volunteer	1959 Hearse		14	14	0			
Powell	Deer Lodge	Private	1969 Coach		7	7	0	39.82		
			1953 Wagon					39.82		

REGION 1

AMBULANCE SERVICE DATA

County	Ambulance Service	Type of Service	Type of Amb. (Year & Make)	State Design Standards Met	Ambulance Personnel Level of Training No.	Advanced Red Cross	EMT-A	Radio Equip.	Cardiac Monitor	Extri. Equip.
Ravalli	Hamilton	Local Gvt.	1970 Van		42	21	21	155.280		
			1960 Suburban					155.280		
	Stevensville	Local Gvt.	1965 Van					155.280		
	Darby	Local Gvt.	1963 Suburban					155.280		
	Victor	Volunteer	1964 Coach		12	12	0	155.280		X
Sanders	Hot Springs	Volunteer	1952 Coach		3	3	0	39.82		
	Thompson Falls	Local Gvt.	1970 Suburban		4	4	0	39.82		
	Plains	Private	1971 Coach		8	5	3	155.280		
	Noxon	Volunteer	1954 Coach		7	7	0	39.82		
Silver Bow	Butte	Private	1959 Van		8	3	5	C.B.		
			1958 Coach					C.B.		
	Butte	Private	1958 Coach		9	6	3	C.B.		
			1966 Coach							
TOTAL	34				488	300	188			

REGION 2

AMBULANCE SERVICE DATA

County	Ambulance Service	Type of Service	Type of Amb. (Year & Make)	State Design Standards Met	Ambulance Personnel Level of Training			Radio Equip.	Cardiac Monitor	Extri. Equip.
					No.	Advanced Red Cross	EMT-A			
Blaine	Chinook	Local Gvt	1971 Suburban		4	2	2	39.82		
Broadwater	Townsend	Local Gvt	1971 Suburban		7	7	0	39.82		
Cascade	Great Falls	Private	1974 Modular	X	14	1	13	155.280		
			1972 Coach					155.280		
	Belt	Volunteer	1953 Coach		8	8	0	39.82		
Chouteau	Fort Benton	Volunteer	1969 Coach		7	7	0	155.280		
	Big Sandy	Volunteer	1970 Suburban		15	15	0	39.82		
Gallatin	Bozeman	Private	1972 Van		27	20	7	155.280		
			1972 Van					155.280		
	Big Sky		1972 Suburban		22	20	2	151.685/		
			1964 Coach					151.710		
	West Yellowstone	Local Gvt	1964 Coach		16	6	10	39.82		
Glacier	Cut Bank	Local Gvt	1969 Coach		9	5	4	39.82		
			1958 Wagon					39.82		
	Browning	Local Gvt	1969 Van		18	0	18	39.82		X
Hill	Rudyard	Volunteer	1960 Suburban		6	4	2			
	Havre	Local Gvt	1974 Van	X	16	8	8	155.280		X
			1968 Coach							
Jefferson	Boulder	Local Gvt	1963 Coach		10	1	9	39.82		
	Whitehall	Local Gvt	1968 Suburban		18	8	10	39.82		
Lewis & Clark	Helena	Private	1967 Coach		26	17	9	158.610		X
			1967 Coach					152.150		
			1962 Coach							
	Lincoln	Volunteer	1966 Coach		16	15	1	39.82		
Liberty	Chester	Volunteer	1972 Van		7	5	2	155.280		
			1960 Coach					155.280		
Meagher	White Sulphur Springs	Volunteer	1969 Van		9	9	0	39.82		
Park	Livingston	Funeral Home	1965 Coach		8	8	0	155.280		
			1969 Wagon					155.280		
	Livingston	Fun. Home	1971 Van		9	3	6	155.280		
Pondera	Conrad	Local Gvt	1972 Coach		9	0	9	155.280		X
			1965 Coach					155.280		
	Valier	Local Gvt	1972 Van		6	2	4	155.280		

REGION 2

AMBULANCE SERVICE DATA

					Ambulance Personnel Level of Training					
County	Ambulance Service	Type of Service	Type of Amb. (Year & Make)	State Design Standards Met	No.	Advanced Red Cross	EMT-A	Radio Equip.	Cardiac Monitor	Extri. Equip.
Teton	Choteau	Volunteer	1964 Van		12	0	12	155.280		
	Fairfield	Volunteer	1968 Wagon		8	0	8	155.280		
Toole	Shelby	Volunteer	1971 Cortez		34	28	6	155.280	X	X
			1958 Coach							
TOTAL	26				341.	199	142			

REGION 3

AMBULANCE SERVICE DATA

County	Ambulance Service	Type of Service	Type of Amb. (Year & Make)	State Design Standards Met	Ambulance Personnel Level of Training			Radio Equip.	Cardiac Monitor	Extrl. Equip.
					No.	Advanced Red Cross	EMT-A			
Big Horn	Hardin	Local Gvt	1972 Van	X	27	14	13	155.280		X
			1968 Coach					155.280		
	Lodge Grass	Local Gvt	1961 Coach					39.82		
Carbon	Red Lodge	Local Gvt	1967 Coach		10	8	2	39.82		X
	Bridger	Volunteer	1971 Van		9	6	3	39.82		
	Joliet	Volunteer	1951 Coach		15	7	8	39.82		
Carter	Ekalaka	Hospital	1960 Coach		6	6	0			
Custer	Miles City	Local Gvt	1968 Van		16	8	8	39.82		X
Daniels	Scobey	Local Gvt	1960 Wagon		5	5	0	39.82		
Dawson	Glendive	Volunteer	1973 Van	X	18	1	17	155.280		X
			1965 Suburban							
	Richey	Volunteer	1967 Van		9	9	0	39.82		
Fallon	Baker	Private	1970 Van		4	2	2	39.82		
Fergus	Lewistown	Local Gvt	1973 Van	X	20	20	0	155.280		X
								155.280		
	Denton	Volunteer	1962 Coach		17	17	0	39.82		
Garfield	Jordan	Volunteer	1962 Coach		10	10	0	39.82		
Golden Valley										
Judith Basin	Stanford	Local Gvt	1962 Coach		7	7	0	39.82		
	Hobson	Volunteer	1974 Van		10	10	0	39.82		
McCone	Circle	Volunteer	1961 Coach		9	9	0	39.82		
Musselshell	Roundup	Local Gvt	1973 Van	X	42	0	42	155.280		X
Petroleum	Winnett	Volunteer	1962 Wagon		3	2	1	39.82		
Phillips	Malta	Local Gvt	1973 Suburban		11	11	0	155.280		
			1967 Coach							
Powder River	Broadus	Private	1970 Wagon		7	2	5	39.82		
			1964 Wagon							
Prairie	Terry	Private	1970 Van		7	7	0	39.82		
Richland	Sidney	Hospital	1974 Van	X	12	4	8	39.82		
			1969 Van							

REGION 3

AMBULANCE SERVICE DATA

					Ambulance Personnel Level of Training					
County	Ambulance Service	Type of Service	Type of Amb. (Year & Make)	State Design Standards Met	No.	Advanced Red Cross	EMT-A	Radio Equip.	Cardiac Monitor	Extri. Equip.
Roosevelt	Wolf Point	Hospital	1967 Van		8	8	0	39.82		
	Poplar	Volunteer	1966 Van		5	3	2	39.82		
	Culbertson	Local Gvt	1969 Van		5	5	0	39.82		
Rosebud	Forsyth	Local Gvt	1971 Wagon		8	2	6	39.82		
	Colstrip	Private	1965 Coach		6	3	3	155.280		
Sheridan	Plentywood	Volunteer	1967 Suburban		8	8	0	39.82		
Stillwater	Columbus	Volunteer	1969 Van		4	4	0	39.82		
	Absarokee	Volunteer	1973 Van		24	24	0	39.82		
Sweet Grass	Big Timber	Local Gvt	1972 Suburban		4	1	3	39.82/ 155.280		X
Treasure	Hysham	Local Gvt	1973 Van	X	8	2	6	155.280		
Valley	Glasgow	Private	1972 Van		4	0	4	39.82		
			1965 Coach							
Wheatland	Harlowton	Local Gvt	1972 Van	X	26	2	24	155.280		X
Wibaux	Wibaux	Volunteer	1970 Van		10	10	0	39.82		
Yellowstone	Laurel	Local Gvt	1970 Suburban		6	3	3	155.280		
	Worden	Volunteer	1965 Suburban		17	8	9	155.280		
	Billings	Private	1973 Van	X	22	18	4	155.280		X
			1967 Coach					155.280		
	Billings	Private	1973 Van		7	3	4	155.280		X
TOTAL	40				446	269	177			

EMERGENCY CAPABILITIES - MONTANA HOSPITALS

COUNTY	TYPE OF FACILITY (1)	HOSPITAL NAME - CITY	Beds	Adm.	PHYSICIAN STAFFING OF ER				SELECTED EMERGENCY SERVICES CAPABILITIES											
					ER Visits	Full Time ER Phys.	In Hosp. 24 hrs.	On call	Lab	Radio.	Surg.	Post Op.	ICU-CCU	Detox.	Poison Center	Pharm	Neo-Natal Int Care	Burn	Acute Psy	Blood Bank
Beaverhead	AG	Barrett Hospital Dillon	31	987	1074			X	X	X	X	X	X			X				X
Deer Lodge	AG	Community Hosp. of Anaconda Anaconda	55	2426	3078			X	X	X	X	X	X			X				
Deer Lodge	TB	Galen State Hospital Galen	170	242	0			X	X	X	X	X				X				
Deer Lodge	MH	Warm Springs State Hosp. Warm Springs	170	2929	0			X	X		X					X				
Flathead	AG	Flathead Health Center Kalispell	84	4623	4853			X	X	X	X	X	X			X				X
Flathead	AG	North Valley Hospital Whitefish	50	2306	1261			X	X	X	X	X	X			X				X
Granite	AG	Granite County Memorial Philipsburg	10	284	189			X	X	X	X		X			X				
Lake	AG	St. Joseph Hospital Polson	40	1400	6398			X	X	X	X	X	X			X				X
Lake	AG	St. Luke Community Hosp. Ronan	25	1033	608			X	X	X	X					X				X
Lake	AG	Holy Family Hospital St. Ignatius	30	1044	2031			X	X	X	X					X				X
Lincoln	AG	St. John's Lutheran Hosp. Libby	34	1137	177			X	X	X	X	X	X			X				X
Madison	AG	Madison Valley Hospital Ennis	11	407	0			X	X		X		X			X				
Madison	AG	Ruby Valley Hospital Sheridan	20	599	131			X	X	X	X		X			X				
Mineral	AG	Mineral County Hospital Superior	9	207	306			X	X	X						X				
Missoula	AG	Missoula Community Hosp. Missoula	105	3982	6018			X	X	X	X	X	X			X				X
Missoula	AG	Missoula General Hospital Missoula	57	1184	411			X	X	X	X	X	X			X				X
Missoula	AG	St. Patrick Hospital Missoula	237	8065	11536	X		X	X	X	X	X	X			X	X		X	X
Powell	AG	Powell County Memorial Deer Lodge	35	1276	644			X	X	X	X	X	X			X				X
Ravaili	AG	Marcus Daly Memorial Hamilton	32	2457	533			X	X	X	X	X	X			X				X

Appendix B-4

EMERGENCY CAPABILITIES - MONTANA HOSPITALS

COUNTY	TYPE OF FACILITY	HOSPITAL NAME - CITY	Beds	Adm.	PHYSICIAN STAFFING OF ER				SELECTED EMERGENCY SERVICES CAPABILITIES											
					ER Visits	Full Time ER Phys.	In Hosp. 24 hrs.	On call	Lab	Radio.	Surg.	Post Op.	ICU-CCU	Detox.	Poison Center	Pharm	Neo-Natal Int Care	Burn	Acute Psy	Blood Bank
Sanders	AG	Clark Fork Valley Hospital Plains	22	1142	338			X	X	X	X	X	X			X				X
Silver Bow	AG	St. James Community Hosp. Butte	180	7170	6767			X	X	X	X	X	X			X				
Silver Bow	AG	Silver Bow General Hosp. Butte	142	3391	5485			X	X	X	X	X	X			X				
		REGION I TOTALS	1549	48291	51838	1	0	22	20 22	20	[illegible] 21	[illegible] 15	[illegible] 17	0	0	22	1	0	0 1	~~0~~ 13

Appendix B-4

1973

REGION 2

EMERGENCY CAPABILITIES - MONTANA HOSPITALS

COUNTY	TYPE OF FACILITY	HOSPITAL NAME - CITY	Beds	Adm.	PHYSICIAN STAFFING OF ER: ER Visits	Full Time ER Phys.	In Hosp. 24 hrs.	On call	SELECTED EMERGENCY SERVICES CAPABILITIES: Lab	Radio.	Surg.	Post Op.	ICU-CCU	Detox.	Poison Center	Pharm	Neo-Natal Int Care	Burn	Acute Psy	Blood Bank
Blaine	IHS	Fort Belnap Harlem	22	355	205			X	X							X				
Broadwater	AG	Broadwater Hospital Townsend	23	538	0			X	X	X	X		X			X				X
Cascade	AG	Great Falls Columbus Hosp Great Falls	213	7752	11623			X	X	X	X	X	X			X				X
Cascade	AG	Montana Deaconess Hosp. Great Falls	270	11197	10357	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Chouteau	AG	Big Sandy Medical Center Big Sandy	9	328	1031			X	X		X		X			X				
Chouteau	AG	St. Clare Hospital Fort Benton	19	297	545			X	X	X	X					X				
Gallatin	AG	Bozeman Deaconess Hosp. Bozeman	164	9890	4294			X	X	X	X	X	X		X	X				X
Glacier	IHS	Browning Black Feet Res. Browning	34	264	6195			X	X	X	X	X	X			X				X
Glacier	AG	Glacier County Memorial Cut Bank	42	634	1911			X	X	X	X	X	X			X				X
Hill	AG	Northern MT Hospital Havre	148	4736	3959			X	X	X	X	X	X			X				X
Jefferson	AG	Boulder River School & Hospital Boulder	60	116	0			X	X	X	X	X				X				X
Lewis & Clark	AG	St. Peter's Hospital Helena	111	5272	5658			X	X	X	X	X	X		X	X				
Lewis & Clark	AG	Shodair Hospital Helena	35	1685	1240			X	X	X	X	X				X				X
Lewis & Clark	VA	Veterans Hospital Fort Harrison	160	2527	0			X	X	X	X	X				X				
Liberty	AG	Liberty County Hospital Chester	11	356	710			X	X	X	X					X				
Meagher	AG	Mountain View Memorial White Sulphur Springs	8	222	86			X	X		X					X				
Park	AG	Livingston Memorial Hosp Livingston	54	1694	2059			X	X	X	X	X	X			X				X
Pondera	AG	Pondera County Hospital Conrad	50	1971	2422			X	X	X	X	X	X			X				X
Teton	AG	Teton Memorial Choteau	22	836	3694			X	X	X	X					X				X

Appendix B-4

EMERGENCY CAPABILITIES - MONTANA HOSPITALS

COUNTY	TYPE OF FACILITY (3)	HOSPITAL NAME - CITY	Beds	Adm.	PHYSICIAN STAFFING OF ER: ER Visits	Full Time ER Phys.	In Hosp. 24 hrs.	On call	SELECTED EMERGENCY SERVICES CAPABILITIES: Lab	Radio.	Surg.	Post Op.	ICU-CCU	Detox.	Poison Center	Pharm	Neo-Natal Int Care	Burn	Acute Psy	Bloo Bank
Big Horn	IHS	Crow Agency Hospital Crow Agency	34	1253	24827			X	X	X	X	X	X			X				
Big Horn	AG	Big Horn County Memorial Hardin	16	639	595			X	X	X	X		X			X				
Carbon	AG	Carbon County Memorial Red Lodge	28	1012	72			X	X		X					X				
Carter	AG	Dahl Memorial Hospital Ekalaka	16	442	52			X	X	X	X		X			X				
Custer	AG	Holy Rosary Hospital Miles City	109	3557	3153			X	X	X	X	X	X			X			X	X
Custer	VA	Veterans Hospital Miles City	96	1471	0		X	X	X	X	X	X	X			X				
Daniels	AG	Daniels Memorial Hosp. Scobey	20	364	75			X	X	X	X					X				
Dawson	AG	Glendive Community Hosp. Glendive	46	1533	437			X	X	X	X		X			X				X
Fallon	AG	Fallon Memorial Hosp. Baker	19	530	902			X	X	X	X	X	X			X				
Fergus	AG	Central Montana Hosp. Lewistown	51	1578	1909			X	X	X	X	X	X			X				X
Garfield	AG	Garfield County Hosp. Jordan	8	77	398			X	X		X		X			X				
Golden Valley																				
Judith Basin																				
McCone	AG	McCone County Hospital Circle	20	724	287			X	X	X	X									
Musselshell	AG	Roundup Memorial Hosp. Roundup	17	745	701			X	X	X	X					X				X
Petroleum																				
Phillips	AG	Malta Hospital Malta	30	867	228			X	X	X	X		X			X				
Powder River																				
Prairie	AG	Prairie Community Hosp. Terry	8	164	250			X	X				X			X				

EMERGENCY CAPABILITIES - MONTANA HOSPITALS

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COUNTY	TYPE OF FACILITY	HOSPITAL NAME - CITY	Beds	Adm.	PHYSICIAN STAFFING OF ER				SELECTED EMERGENCY SERVICES CAPABILITIES											
					ER Visits	Full Time ER Phys.	In Hosp. 24 hrs.	On call	Lab	Radio.	Surg.	Post Op.	ICU-CCU	Detox.	Poison Center	Pharm	Neo-Natal Int Care	Burn	Acute Psy	Blood Bank
Toole	AG	Toole County Hospital Shelby	30	770	227			X	X	X	X		X			X				X
		REGION 2 TOTALS	1485	51440	56216	1	1	20	20	17	19	12	12	1	~~0~~ 3	20	~~0~~ 1	D	~~0~~ 1	~~0~~ 13

EMERGENCY CAPABILITIES - MONTANA HOSPITALS

COUNTY	TYPE OF FACILITY	HOSPITAL NAME - CITY	Beds	Adm.	PHYSICIAN STAFFING OF ER				SELECTED EMERGENCY SERVICES CAPABILITIES											
					ER Visits	Full Time ER Phys.	In Hosp. 24 hrs.	On call	Lab	Radio.	Surg.	Post Op.	ICU-CCU	Detox.	Poison Center	Pharm	Neo-Natal Int Care	Burn	Acute Psy	Blood Bank
Richland	[illegible]	Community Memorial Hosp. Sidney	55	2082	753			X	X	X	X	X	X			X				X
Roosevelt	[illegible]	Roosevelt Memorial Hosp. Culbertson	19	580	63			X	X	X	X					X				
Roosevelt	AG	Poplar Community Hosp. Poplar	22	687	1266			X	X	X	X	X	X			X				X
Roosevelt	AG	Trinity Hospital Wolf Point	48	1448	637			X	X		X		X			X				X
Rosebud	[illegible]	Rosebud Community Hosp. Forsyth	26	595	1336			X	X	X	X	X	X			X				
Sheridan	AG	Sheridan Memorial Hosp. Plentywood	26	907	393			X	X	X	X		X			X				
Stillwater	AG	Stillwater Community Hos Columbus	27	771	419			X	X	X	X		X			X				X
Sweet Grass	AG	Sweet Grass Community Big Timber	17	1351	333			X	X	X	X	X	X			X				
Treasure	[illegible]																			
Valley	AG	Frances Mahon Deaconess Glasgow	68	2249	185			X	X	X	X	X	X			X				X
Wheatland	AG	Wheatland Memorial Hosp Harlowton	25	609	240			X	X	X	X					X				X
Wibaux																				
Yellowstone	AG	Billings Deaconess Hosp Billings	197	6845	7500			X	X	X	X	X	X	X		X	X		X	
Yellowstone	AG	St. Vincent's Hospital Billings	191	11958	37930	X	X	X	X	X	X	X	X			X			X	X
		REGION 3 TOTALS	1239	45038	84941	1	2	27	27	23	~~21~~ 26	12	21	1	0	26	1	0	23	11

Appendix B-5

State of Montana

Department of Institutions

GOVERNOR
THOMAS L. JUDGE

DIRECTOR
EDWIN G. KELLNER

COMMUNITY SERVICES DIVISION
1409 HELENA AVENUE
HELENA, MONTANA 59601
TELEPHONE 449-3097

November 12, 1974

Robert Quam, Chief
Emergency Medical Services Bureau
Hospital & Medical Facilities Division
1424 Ninth Avenue
Helena, MT 59601

Dear Mr. Quam:

Enclosed find data you requested on November 6, 1974.

If I can be of further service, please feel free to call or write.

Sincerely,

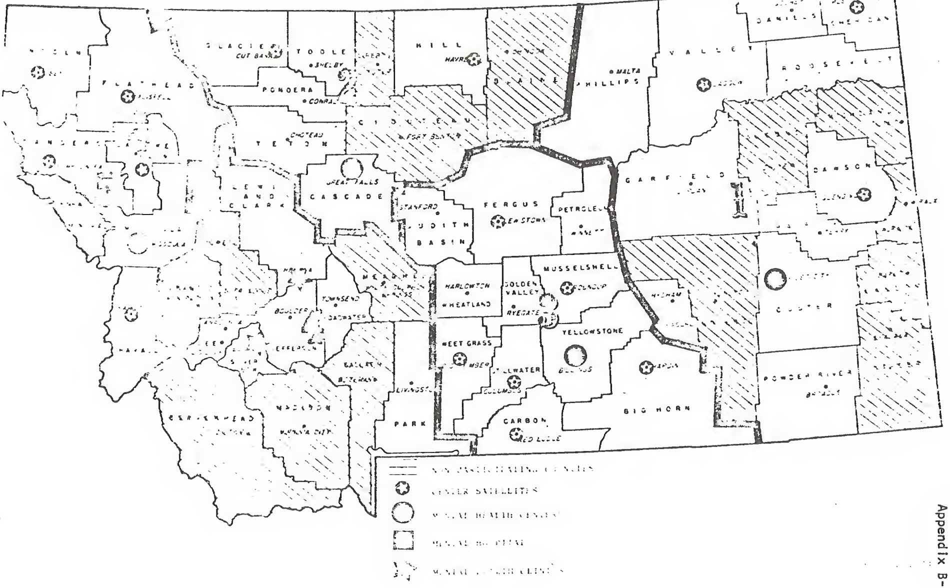
Philip Powers/jmh

Philip Powers, Chief
Mental Health Bureau

jmh

Enclosures: Map
Facilities listing
Federal Regulations excerpt
State Regulations excerpt

MONTANA



Appendix B-5

MENTAL HYGIENE CLINICS

Butte Mental Hygiene Clinic

Address: 225 South Idaho Street - Room 103
Old St. James Hospital
Butte, MT 59701

Phone: 792-5061 (Centrex = 123-285)

Staff: Harry Xanthopoulos, M.D., Psychiatrist
Lars Slette, Psychiatrist
James Dick, Psychologist
Archie McPhail, Psychologist
Timothy Casey, Psychologist
Jack Balcombe, Psychiatric Social Worker
Cleo Butler, Psychiatric Nurse
Shirley Driscoll, R.N.
Dollye Emerson, Receptionist - Secretary
Phyllis Burns, Receptionist - Secretary

Helena Mental Hygiene Clinic

Address: 1415 - 17 Helena Avenue
Helena, MT 59601

Phone: 442-0640

Staff: Francine Larson, M.D., Psychiatrist III
Katherine Gallagher, Psychologist III
Sandra Flamm, Secretary I

III. SERVICE

Standard 1. The mission of a Community Mental Health Center is to provide a comprehensive range of accessible, coordinated mental health services, including direct patient services and indirect mental health services to the residents of its catchment area. The following services must be provided: emergency, out-patient, intermediate care, in-patient and consultation and education. Recommended also are training, research and evaluation, rehabilitation, pre and after care, and central administration service.

Standard 2. Emergency Services must be accessible to residents of the catchment area on a 24-hour basis. Attention must be given to proper location of the emergency unit or units, telephone availability and 24-hour coverage by trained personnel. Medical services shall be available to the emergency service at all times. The emergency service shall have the capability of providing evaluation and treatment services outside the Center facility as necessary (e.g., home visits, jails, general hospitals, etc.). There must be active follow-up and coordination of the emergency service with other elements of service to insure continuity of care. Emergency service shall not be refused to patients from non-participating counties. The use of trained volunteers to assist regular staff is feasible and desirable in this service.

Standard 3. Out-patient Service: Since out-patient care is usually the most highly utilized service, efforts must be made to promote

D) Emergency Service

The emergency service of a community mental health center must provide immediate mental health care and evaluation for persons in crisis on a 24-hour-a-day, seven-day-a-week basis.

There are two major components of the emergency service: face-to-face contact and a crisis telephone service.

---- Face-to-Face Contact

The emergency service must provide face-to-face crisis intervention by mental health professionals or qualified mental health workers. In the instance where nonprofessional mental health workers are utilized, the applicant must describe the program designed for training such personnel. In any event, there must be a mental health professional immediately available for consultation and direct service, as needed.

There are several ways by which a center may provide face-to-face crisis intervention. It may be provided in one or more facilities within the catchment area, through mobile crisis intervention teams, or through a combination of mechanisms.

One central "emergency room" and/or walk-in clinic may be adequate for some centers to effectively meet the emergency needs of the area residents. However, centers serving large geographical areas or areas with other barriers will not ordinarily be able to provide adequate emergency services in a single facility. Such centers should provide services in several appropriately situated facilities and/or through mobile teams.

---- Telephone Service

The community mental health center should establish a 24-hour-a-day crisis telephone service manned by mental health professionals or trained mental health workers. Such telephone service can provide the basic mechanism for the evaluation of the crisis and the determination of the steps necessary to ensure the rapid provision of appropriate care.

Whenever possible, one central service with a single telephone number should be established. This will provide for better continuity and coordination, will lessen the chances of "losing patients," and will maximize visibility.

It may be necessary, however, to establish more than one telephone service when a center serves a large geographical area made up of several small cities and towns. In either case, the telephone number or numbers should be clearly listed in the directory or directories serving the area.

When the telephone service is manned by nonprofessional mental health workers, there must be a mental health professional immediately available for consultation. In addition, applicants must describe the qualifications of the persons who are to man the telephones, and, if these persons have no prior training or experience in crisis telephone services, the applicant must describe a plan for their training.

All components of the emergency service must be coordinated into a unified program which in turn must be coordinated with other service elements. Of particular importance is the assurance that patients receiving emergency care can be readily transferred to other services of the center, as their needs dictate. Providing for followup of patients who seek emergency care is also an important component of an effective program.

Appendix B-6

3425 South Clarkson, Englewood, Colorado 80110 / (303) 761-3040

CRAIG HOSPITAL

PROCEDURE FOR EMERGENCY MEDICAL SERVICES FOR SPINAL CORD AND BRAIN INJURIES

Available Facilities

Craig Hospital is an 80 bed facility dedicated to the rehabilitation of spinal cord and brain injured patients. Craig has extensive rehabilitation facilities including nursing service, physical therapy, occupational therapy, speech therapy, family service counseling, recreational therapy, flight nursing, outpatient clinic and educational programs. The Active Attending Medical Staff is comprised of six physicians who serve full time as case managers for all patients in a team oriented approach. An Active Consulting Staff of approximately 30 physicians representing all specialties and sub-specialties are available for consultation upon request of the Active Attending physician.

In relation to the rehabilitation expertise available, Craig also leases a variety of clinical and nonclinical services from Swedish Medical Center, a 322-bed, general, acute hospital connected by tunnel. The services leased include X-ray, laboratory, respiratory care, pharmacy, surgical suite and other services. In the event of trauma resulting in spinal cord or brain injury, Craig patients are seen and screened initially in the Swedish Emergency Room. The Emergency Room is undergoing major expansion which will include a helipad for air evacuation to be completed by spring of 1975. The intensive care unit is available for Craig patients with medical complications as is a neurotrauma unit for patients in need of stabilization or medical management prior to an active rehabilitation program. The facilities of Craig combined with those of Swedish provide a comprehensive system for progressive care for spinal cord and brain injuries.

Emergency Admission Procedure

Spinal cord trauma generally involves patients in one of three categories: 1) Spinal cord damage with related or unrelated medical complications, 2) Spinal cord damage without medical complications but in need of stabilization prior to transporting, 3) Spinal cord damage without any medical complications.

Patients in Category 1 would often need a period of acute hospitalization prior to transporting to Craig. Patients in Category 2 would often need some stabilization in an acute facility prior to transporting. Those patients in Category 3 would generally not require any acute hospitalization and could be transferred almost immediately to Craig.

For any spinal cord injury within the Region VIII area that is likely to be trans-

Craig Rehabilitation Hospital

ferred to Craig, it is desirable that a telephone referral be initiated at the earliest possible time. This can be accomplished by calling Craig Hospital at Area Code 303 761-3040. Between the hours of 6:30 a.m. and 11 p.m. the call will be received by the switchboard operator who would take the appropriate information and contact a physician in the hospital or on call. Between 11 p.m. and 6:30 a.m.the call would be received direct by one of the nursing staff who would initiate the same procedure.

The initial phone contact should determine the location of the patient, his level of cord injury if known, the presence of associated injuries or medical complications, (particularly intra-abdominal wounds, chest wounds or head wounds).

(The procedure outlined above would apply for brain injuries as well as spinal cord injuries.)

Since early referral is a very important part of the entire rehabilitation philosophy af Craig, priority for admission is to new injuries ready for transporting to Craig. The geographic area is also a consideration with priority generally being given to patients within the primary service area of Craig versus those referred from other areas of the country. In addition, spinal cord injuries are often given priority over brain injuries because the course of treatment for the spinal cord injured is usually much more predictable than that of the brain injured patient.

Patient Screening and Triage

As it is often difficult to determine over the telephone whether a patient is ready for an active rehabilitation program, a certain amount of screening and triage may be necessary upon the patient's arrival at Craig. If medical complications are present preventing an active rehabilitation program at that point in time, the patient will likely be transferred to the Neurotrauma Unit at Swedish for a period of time. Upon resolution of the medical complications in the acute setting, the patient will be transferred to Craig for an active rehabilitation program. The medical supervision for the Neurotrauma Unit is provided by one of the Craig physicians.

In the event of trauma in the Denver metropolitan area, ground or helicopter transportation is practical from the scene of the trauma, and screening and triage can be accomplished in the Swedish Emergency Room involving one of the Craig physicians and any consultants required. If the patient is in need of stabilization or if medical complications are present, the patient would likely be transferred to the Intensive Care Unit or the Neurotrauma Unit. If there are little or no complications associated with the injury, the patient could be transferred immediately to Craig.

Flight Nursing Service

In the event a patient needs acute hospitalization in an outlying area prior to transporting to Craig, Craig has available a flight nursing service to assist in the transport when it is deemed appropriate. Two trained registered nurses can arrange for a chartered flight to accompany a patient and/or family from the refereing institution to Craig. This service can be arranged by contacting one of the flight nurses at the hospital, Monday through Friday from 8 a.m. to 4:30 p.m.

Patient Sponsorship and Family Arrangements

Since many of the patients referred to Craig stay on an average of 60 to 90 days, the financial sponsorship or insurance coverage of the patient at the time of the initial referral is requested. In some cases the financial sponsorship is unknown and the staff at Craig will assist in making these arrangements. Some family members do accompany the patient to Craig and stay for a period of time, and family accommodations within a block of the hospital can be arranged.

Any questions regarding the above can be directed to the Admissions Office at the hospital.

Follow-up Program

An integral part of the Craig program includes follow-up plans once the patient has been discharged from the hospital. The objective of the rehabilitation program is to help the patient and family adjust to the patient's disability and to help the patient become as independent and productive as possible. However, the nature of the injury makes the patient more susceptible to certain medical problems which must be monitored over the lifetime of the patient. Therefore, an annual re-evaluation is scheduled in which a patient preferably returns to Craig for a 3-5 day period for an entire evaluation of all physiology. This re-evaluation also offers an opportunity to discuss problems encountered by the patient which the staff may be able to help solve prior to returning home. Since the goal of the rehabilitation program was to make the patient as independent as possible, the re-evaluation is done on an outpatient basis and the patient is housed in a wheelchair accessible apartment building within a block of the hospital. In this way the patient can continue his typical life style while receiving the medical tests and attention needed and at much less cost than an inpatient stay.

Educational Programs

Craig has received designation by the federal government as the Rocky Mountain Regional Spinal Injury Center. For this reason the hospital feels a responsibility towards educating its referral base in the most appropriate way to take advantage of the specialized facilities. In an attempt to accomplish this, a cadre of Craig staff is being assembled to travel throughout the catchment area to stage educational programs in the immediate care of spinal cord and brain injured and the appropriate procedure to be followed in transporting a patient to Craig. This concept is just evolving but is something which can hopefully be accomplished in the near future.

December 1974

ROCKY MOUNTAIN POISON CENTER
W 8th and CHEROKEE • DENVER, COLORADO 80204 • 303/893-7771

TO: State Agency Delegated Coordinators of Emergency Medical Services
and HEW-Regional Program Directors for Emergency Medical Services

FROM: Barry H. Rumack, M.D.
Director Rocky Mountain Poison Center

The Rocky Mountain Poison Center has been called upon by several of the state agency delegated EMS coordinators and Health Education and Welfare Regional Program Directors for Emergency Medical Services to assist in the development of regionalized poison treatment facilities. This is one of the seven critical care areas selected by the department of Health, Education and Welfare for inclusion in Emergency Medical Service system grant request.

It was suggested to us that other coordinators and directors may also be interested in these activities. Enclosed is an initial proposal for your use. The Rocky Mountain Poison Center would be delighted to assist you in development of your own regional emergency poison treatment efforts. Please do not hesitate to call on us.

DEVELOPMENT OF REGIONAL AND SUBREGIONAL POISON CENTERS

PROPOSAL FOR: Mr. Robert Heggie
Regional Program Director
Emergency Medical Services

PROPOSAL PREPARED BY: Barry H. Rumack, M.D.
Director Rocky Mountain Poison Center
Assistant Professor Pediatrics & Medicine

PURPOSE:

Poisoning is one of seven critical care areas selected by the Department of Health, Education & Welfare for inclusion in Emergency Medical Services Systems (EMSS) grant requests. This report is for use by states in Region VIII: Colorado, Wyoming, Montana, North Dakota, South Dakota and Utah.

DATA BASE:

Plans discussed here are drawn from the Rocky Mountain Regional Poison Center (RMPC), Denver, which has been in operation for one year serving primarily Colorado.

PROPOSAL:

As the incidence of poisoning overdose and drug abuse continues to increase, it is appropriate to contemplate upgrading of current service in this area and institution of new services. Few hospitals are equipped with the necessary expertise to adequately handle most types of poisonings although these cases provide approximately 10% of all emergency room cases.

The RMPC was created as a conglomeration of several smaller poison centers in January of 1974. Phase I of its regional operation was instituted at that time and provided the following services:

1. Twenty-four hour poison information by a staff of trained nurses
2. Generation of a Computer Generated Microfiche Emergency Poison Management system (POISINDEX) including ingredient information and emergency treatment protocols.
3. A public education program
4. A physician education program
5. A physician clinical toxicologist to act as a consultant to physicians accessing the Center and to provide guidance for the development of the Center. This physician carries a two way radio at all times (Motorola Handi-Talki) and is instantly available to be patched into any call received at the RMPC.

With the institution of Phase I the outmoded concept of the Poison Control Center which had existed for the past 20 years was erased. Hence forth, professional full-time consultation was available and the information aspects were based on a massive information system.

Phase II was instituted in April of 1974 and provided the first formal expansion of the Center's services to the remainder of the state of Colorado. This action was taken after it was realized that other hospitals in the 13 Planning and Management Regions of Colorado had little if any capability in this area and required assistance. Items instituted in Phase II were:

1. Installation of a toll-free telephone line (800-332-3073) covering the entire state of Colorado
2. Placement of computer generated microfiche information devices (POISINDEX) in major hospital emergency departments in regions of

Colorado

3. Training at each sub-regional hospital of emergency room nurses in management of poison patients and methods of information access
4. Installation of Xerox Telecopiers at each subregional center to provide transmission facilities for hard copy communication with the RMPC in Denver
5. Provision of a list of drugs and materials required for the treatment of poisoned patients along with dosages and indications
6. Establishment of a state-wide public and physician education program
7. Cooperative program with a "Flight-for-Life" helicopter and fixed wing transport capabilities to provide evacuation of the seriously poisoned patient requiring sophisticated treatment facilities. This capability is accessed on the RMPC Conference phoneboard so that the poison nurse, referring doctor, helicopter dispatcher and toxicologists are all linked together and can rapidly make all necessary arrangements.

This state regionalized poison system, in cooperation with the State Health Department, and the Colorado Health and Environmental Council (CHEC) committee composed of regional health directors, produced a significant step forward in providing high quality treatment to patients throughout the state. Statistics from the Rocky Mountain Poison Center showed the call volume more than doubled as Phase I and Phase II were initiated, further demonstrating the need which has now been met.

Phase III is in keeping with the recommendations of a group of major poison control centers from across the country. These recommendations are that 10 or 15 major regional poison centers be established nationwide and operated 24 hours a day. In cooperation with each regional poison center, a subregional treatment center should be established in each health region, preferably at the hospital designated as a trauma or EMS center. Given subregionalization only one major center would be required for six to ten states. This major regional center should provide 24 hour a day service to the subregional centers as well as continuous training, information services and assistance with definitive specialized medical care. Each one of the present small poison centers operates independantly and usually poorly because of inadequate staffing and finances. Most of these centers do not have a full-time staff and cannot maintain adequate references for professional consultation facilities. With the recommended system there would actually be an increase in the number of hospitals designated as subregional emergency poison treatment centers and capable of providing high quality therapeutic maneuvers in the treatment of the poisoned patient.

It is proposed that the RMPC would serve as the regional poison center for surrounding states including North Dakota, South Dakota, Eastern Wyoming and Eastern Montana and that the InterMountain Regional Poison Center would serve for Utah, western Montana and western Wyoming. This includes only states in Region VIII and the RMPC acts for parts of other regions such as western Nebraska and Kansas, etc. Sufficient numbers of subregional poison centers should be established in each of these states to be consistent with trauma center-EMS planning. This subregional system may be modeled after the state regionalization pattern which now exists in Colorado. The RMPC would provide all of the materials to each subregional center and be responsible for training, statistics, recommendations, equipment and consultations.

A toll-free wide area telephone service line should be installed and cover the communication necessities of the states to the RMPC. Each subregional poison center should be equipped with the following materials:

1. A computer generated microfiche emergency poison treatment system (POISINDEX) is produced by the RMPC and updated quarterly. This is the most massive collection of poison ingredient information and specific and detailed treatment that exists anywhere in the world. It is being used by poison centers and emergency treatment facilities throughout the U.S. This would provide the first line of information in the subregional center and would be utilized by a nurse or physician. In this way, there would be no maintenance of poison files or reference texts and thus no specific personnel would have to be dedicated to the subregional poison center.
2. A Xerox Telecopier should be installed in each subregional center for hard copy communications with the regional center and also with other subregional centers.
3. A training program should be provided at or near the time of establishment of the subregional center for the emergency room nurses and personnel at the subregional center. It would be best if each of the subregional centers were located in a state-regional health district trauma center or EMS designated hospital.
4. Drug lists, equipment lists and other material necessary for care of the poisoned patient would be provided and updated at intervals by the RMPC for each subregional emergency treatment center.
5. A physician education program with seminars and follow-up postgraduate education should be provided at intervals. It is suggested that the major training effort be aimed at the emergency room nurses and

emergency room physicians who will be firstline in the treatment of most poisoned patients. In this way, a physician in a small hospital would be able to refer a patient to a subregional center and know that a trained team would be available for treatment. This team in turn at the subregional center would be able to draw on the regional center for further assistance and transportation for specialized and sophisticated medical care such as infant hemodialysis or charcoal hemoperfusion.

The major concept for regional planning is to locate subregional centers throughout the region and educate physicians near the subregional centers to refer initially towards those centers. Those centers in turn would be able to provide a higher level of treatment and be able to fall back on the tertiary center located at the regional poison center. It is expected that no dedicated personnel would be necessary in any facility except at the regional poison center. This would be accomplished through a communication network including a Xerox Telecopier and provision of the on-site computer generated emergency treatment system which does not require clerical time for operation. Thus, a full service response to the poison and drug exposure element of HEW-EMS planning grant proposal would be provided if Phase III of this regionalization were carried out.

All of the information devices, equipment, and techniques described in this report are available for immediate distribution. Upon approval of the regional concept, no lag time would be required for the establishment of an operational poison treatment system encompassing Region VIII or any other region.

APPROXIMATE COST FACTORS WHICH WOULD HAVE TO BE CONSIDERED

PERSONNEL: With adequate staffing at the regional center no additional personnel would be required at any subregional treatment center. Training for all nurses and emergency department physicians would be provided so that each poisoning case could be handled by the staff of the emergency department. Further care could be in the subregional hospital or if necessary at the regional treatment center.

EQUIPMENT: Telecopier - lease per month $42.75
purchase cost $1,463.00
Microfiche - 1 unit with reader and updates $895.00/year
Drugs, antivenoms, etc. - $100-500/center for initial purchase
Public Education program - variable expense - estimate $600-2,500/year for each subregional center.
Phone - Toll Free lines with and between states to connect to the regional center. Do not need 1 line per state since a line can cover several states.
Training - Expenses for a nurse and physician to travel to each subregional center for initial training and for regular retraining sessions.
Transportation - Negotiated separately, currently Lear jet and helicopter service have been used between Denver and most points in Region VIII - as far north, for example as Rolla, North Dakota.

Office Memorandum • MONTANA STATE DEPARTMENT OF HEALTH

TO : Robert L. Quam

DATE: November 12, 1974

FROM : George Marshall and Pat Murdo

SUBJECT : Classification of Hospitals

Spokane has nine hospitals: Deaconess Hospital, Edgecliff Hospital (not licensed by the American Hospital Association), Holy Family Hospital, Raleigh Hills Hospital of Spokane, Sacred Heart Medical Center, Shriners Hospital for Crippled Children, Spokane Valley General Hospital (not licensed by the AHA), St. Luke's Memorial Hospital and the Veterans Administration Hospital.

Deaconess and Sacred Heart are the largest and these two were the ones visited by George Marshall and Pat Murdo.

Four of the main hospitals have heliports. These are: Sacred Heart (roof-top model), Deaconess (roof-top model), Holy Family (parking lot model) and Spokane Valley (parking lot model with fence around it and seldom used because it's considered unsafe).

Altogether five of the major hospitals have 41 operating rooms. These break down to: 15 operating rooms at Sacred Heart, 12 at Deaconess, 6 at Holy Family, 4 at St. Luke's and 4 at Spokane Valley.

Specialities of Deaconess and Sacred Heart

Deaconess
Dr. Noel Stephenson, an Australian, is the medical director for the Deaconess Emergency Room.
Harry C. Wheeler is the hospital administrator.
Anna Mae Erickson is director of nursing.

Poison Control Center for the Inland Empire area. They receive calls from Montana, Idaho, other hospitals in the town. Only registered nurses answer the poison center phone which has tape recording facilities hooked up to it. A microfilm viewer helps quick review of poison symptoms and treatments. Speakers are available to give talks on the poison center, prevention and treatment.

Participates in the Betsie Baby Program. (Baby Emergency Transportation System of the Inland Empire). This program is much like the Pedivac Program operated out of Billings. Contact is through a group of six pediatricians, phone number 838-4611, one of whom is available at any time to hop aboard a helicopter and go fetch a baby that is in critical condition. The MAST (Military Assistance to Safety and to Transportation program) assists in transportation. MAST is contacted through the Washington State Highway Patrol, by the doctor in this case. The babies are taken to either Deaconess Hospital or the Sacred Heart Medical Center. Deaconess has an intensive care nursery with 10 incubators and a regular nursery of 36 beds. Missoula is in the service area for this program. Babies up to one month are eligible, depending on the cause of illness usually.

As far as other areas are concerned, the nurse to whom we spoke, Mrs. Joanne Hall, R.N., felt that the hospital had good burn care facilities and that no or very few burn patients were ever transported. Plastic surgeons are available in the hospital.

The Emergency Room is staffed by interns and usually three or four R.N.'s are on duty at any one time.

Mrs. Hall said the hospital had available some neuro-surgeons who specialized in problems with the upper extremities--hands, arms.

Sacred Heart Medical Center
Administrator is Sister Peter Claver, R.N.
Spoke with Gerald Leahy, Associate Administrator

Kidney Center
Receives patients from Butte, Helena, Havre, Northern Idaho and points west to Wenatchee, Washington. Train patients from these areas in rehabilitation. Training funds are paid for from the vocational rehabilitation chronic training program. Some patients have come from the Billings area. Doctors have been trained from Missoula, Great Falls, possibly from Helena in caring for acute renal patients. He mentioned Dr. Steel and Dr. Addison from Great Falls.

Cares for most of the psychiatric patients in the Spokane area. Is affiliated with the Spokane Mental Health groups. Has a 35 bed psychiatric unit with 17-18 psychiatrists available and an on-going training program for the nurses.

Participates in the Betsie Baby Program. Expects to have a neo-natalogist on the staff by July, 1975. Has an intensive care unit for newborns. Has about 6 to 8 burn patients in the hospital on an average. Five plastic surgeons are associated with the hospital. Has around-the-clock physician coverage of the Emergency Room, interns working in the ER room. Seven neuro-surgeons on the staff. Three neurologists, one physiatrist (doctor of physical neurology and rehabilitation of paraplegics, etc.) Two respiratory physicians, 15-16 respiratory therapists with one therapist assigned to the intensive care unit.

Last year performed about 600 open heart surgeries. Has taken many Montanans in need of open heart surgery.

Largest hospital in the state.

According to Howard Farley, the State of Washington has not attempted to classify hospitals because the classification is too political.

John Colby, Administrator of St. Luke's Memorial Hospital and chairman of the Inland Empire Hospital Administrator's Council, said he would try and send a list of the specialities and capabilities of the Spokane area hospitals

cc: Dave Hunt

PM/jmn

(SAMPLE COVER)

GENERAL INSTRUCTIONS

I. A report is to be filled out for every ambulance run and for every patient treated and/or transported.

II. For all parties to obtain maximum benefit, it is essential that the report form be filled in as completely as possible.

III. To assist in completion of the new version of the Check List, the following points about its design are reviewed below:

- A. The items have been arranged into four areas according to the nature of the information requested –
  1. Research (Cover Sheet)
  2. Identification
  3. Medical
  4. Logistics
- B. The information is recorded in three forms –
  1. "Check off"
  2. Numerical
  3. Written
- C. In two instances, more than one column of "check off" categories has been provided –

  1. To allow up to three injuries to be recorded, together with the associated symptoms and sites, three columns of "check off" categories are provided for the applicable items under "Symptoms," "Sites," and "Suspected Injury." The information concerning the most severe injury should be recorded in the first (red) column under these three headings, the second most serious in the second (blue) columns, and the third most serious in the third (green) columns.

  2. To allow for the recorder to distinguish between aid administered at the scene, and that administered en route, two columns are provided. That provided at the scene should be marked in the first (red) column, that administered en route in the second (blue) column, with that administered at both times to be marked in both columns.

COMPLETE USING A #2 LEAD PENCIL
FORM ALL NUMERALS AS SHOWN.

A

PATIENT TAKEN FROM (Location):

Code	
1	Expressway
2	Other Road/Street
3	Clinic/Dr's Office
4	Hospital
5	Nursing Home
6	Home
7	Place of Work
8	Recreation Area
9	Other – Specify under Comments

B

PATIENT TAKEN TO (Destination):

Code	
1	Emergency Dept.
2	Hospital Bed
3	Out-Patient Dept.
4	Psychiatric Unit
5	Clinic/Dr's Office
6	Home
7	Nursing Home
8	Other – Specify under Comments

C

DRY RUN CODES

Code	
1	No Emergency Health Care Needed
2	Cancelled by Requester
3	Patient Needed but Refused Care
4	Patient Went By Other Means (Explain Under Comments)
5	Prank
6	Victim DOA – Not Moved
7	Unable to Locate
8	Other (Explain Under Comments)

(A Dry Run is any run in which Patient is not transported.)

A
B
C

D E F G

D

AMBULANCE REQUESTED BY:

Code	
1	Citizen
2	Employer
3	Family
4	Fire Dept.
5	Hospital
6	Physician
7	Police
8	Other – Specify under Comments

E

NATURE OF CALL:

Code	
1	Emergency
2	Non-Emergency
3	Stand-By
4	Dry-Run

F

CASE SEVERITY:

Code	
1	Minor/Moderate
2	Severe/Critical
	Apparent Death –
3	Before Ambulance arrived
4	After Ambulance Arrived
5	En Route

G

DIFFICULTIES EN ROUTE:

Code	
1	Severe Traffic
2	Adverse Weather
3	Mechanical Trouble
4	Tire Trouble
5	Involved in Accident
6	Unable to Locate
7	Other (Explain in 'Comments' Section)

AGENCY CODES ☐☐☐ (3 4 5) 1

AMBULANCE # ☐☐☐ (14 15 16)

CASE/RUN # ☐☐☐ (19 20 21)

AMBULANCE REPORT

Do not write in these spaces ▶ ☐☐☐☐☐☐ (6 … 11)

AGE YEARS ☐☐ (22 23)

(Only for Infants under 1 Year) MONTHS ☐☐ (24 25)

AGENCY NAME ____________________

PATIENT NAME ____________________

HOME ADDRESS ____________________ SEX M ☐ 26 F ☐

____________________ TELEPHONE # ____________

INSURANCE CARRIER # ____________ ☐ MEDIC ALERT TAG ____________

SUSPECTED ILLNESS

27 ☐ Abortion/Miscarriage
28 ☐ Asthma
29 ☐ Cardiac Problems
30 ☐ Communicable Disease
31 ☐ Emphysema
32 ☐ Insulin Shock
33 ☐ Maternity
34 ☐ Stroke/CVA
35 ☐ Not Determined
36 ☐ Other

____________ SPECIFY

CAUSE OF INJURY

39 ☐ Motor Vehicle Collision
40 ☐ Vehicle/Ped. Incident
41 ☐ Motorcycle/Bike
42 ☐ Violence
43 ☐ Electrical
44 ☐ Fall
45 ☐ Immersion
46 ☐ Mechanical Equipment
47 ☐ Recreation Activity

____________ SPECIFY

48 ☐ Other

____________ SPECIFY

SYMPTOMS

Abnormal behavior similar to:
51 ☐ Alcohol intake
52 ☐ Drug Overdose
53 ☐ Mental Condition

Bleeding:
54 ☐☐ ☐ Minor
57 ☐☐ ☐ Moderate
60 ☐☐ ☐ Severe

63 ☐ Breathing Diff.
64 ☐ Resp. Arrest
65 ☐ Cardiac Arrest
66 ☐ Card. Arrhythmia
67 ☐ Chills
68 ☐ Convulsions
69 ☐ Cyanosis
70 ☐ Fever
71 ☐ Nausea/Vomiting
72 ☐☐ ☐ Pain
75 ☐ Shock
76 ☐ Weak/Faint
77 ☐ Other
78 ☐ None

2 SITES

13 ☐☐ ☐ Head
16 ☐☐ ☐ Eye
19 ☐☐ ☐ Face
22 ☐☐ ☐ Neck
25 ☐☐ ☐ Upper Arm–Shldr.
28 ☐☐ ☐ Lower Arm–Elbow
31 ☐☐ ☐ Wrist-Hand-Fingers
34 ☐☐ ☐ Back
37 ☐☐ ☐ Chest
40 ☐☐ ☐ Abdomen
43 ☐☐ ☐ Pelvic Region
46 ☐☐ ☐ Upper Leg–Hip
49 ☐☐ ☐ Lower Leg–Knee
52 ☐☐ ☐ Ankle–Foot–Toes
55 ☐☐ ☐ Multiple

CONSCIOUSNESS

☐1 Conscious
☐2 Semi-Conscious
☐3 Unconscious
56

CONDITION EN ROUTE

☐1 Improved
☐2 Unchanged
☐3 Worsened
57

3 SUSPECTED INJURY

13 ☐☐ ☐ Abrasion
16 ☐☐ ☐ Amputation
19 ☐☐ ☐ Asphyxiation
22 ☐☐ ☐ Avulsion
25 ☐☐ ☐ Burn
28 ☐☐ ☐ Concussion
31 ☐☐ ☐ Contusion-Bruise
34 ☐☐ ☐ Crushing
37 ☐☐ ☐ Dislocation
40 ☐☐ ☐ Fracture
43 ☐☐ ☐ Internal
46 ☐☐ ☐ Laceration/Cut
49 ☐☐ ☐ Poisoning
52 ☐☐ ☐ Puncture
55 ☐☐ ☐ Sprain/Strain
58 ☐☐ ☐ Other

____________ SPECIFY

61 ☐☐ ☐ Not Determined

☐☐☐☐ (44 45 46 47)
☐☐☐☐ (48 49 50 51)

DO NOT WRITE IN THE ABOVE SPACES

4 AID GIVEN TO PATIENT: ☐1 At Scene ☐2 En Route

13 ☐☐ Cleared Airway
14 ☐☐ Suctioned Airway
15 ☐☐ Airway Tube
16 ☐☐ Endotracheal Tube
17 ☐☐ Artificial Respiration
18 ☐☐ Oxygen
19 ☐☐ Defibrillator
20 ☐☐ Monitor (Cardiac)
21 ☐☐ Cardiac Compression

____________ TIME STARTED

22 ☐☐ Controlled Bleeding
23 ☐☐ Bandaging
24 ☐☐ Obstetrical Delivery

25 ☐☐ Cold Application
26 ☐☐ Neck/Spine Immobilization
27 ☐☐ Limb Splints
28 ☐☐ Traction Applied
29 ☐☐ Psychological First-Aid
30 ☐☐ Transportation Only
31 ☐☐ Medications:

____________ TYPE & AMOUNT

32 ☐☐ IV Fluids:

____________ TYPE & AMOUNT

33 ☐☐ Other (explain)

____

VITAL SIGNS:

B/P ______/______ ______/______

Pulse ____________ ____________

Resp. ____________ ____________

PUPILS

34 ☐ Equal
35 ☐ Unequal
36 ☐ Dilated
37 ☐ Constricted
38 ☐ Right Larger
39 ☐ Left Larger
40 ☐ No Reaction to Light

Date of Run – MONTH ☐☐ DAY ☐☐ YEAR ☐☐ (41 42 43 44 45 46)

47 ☐ Same as Above

Date of Incident MONTH ☐☐ DAY ☐☐ YEAR ☐☐ (48 49 50 51 52 53)

5 TIME:

Incident Occurred ☐☐:☐☐ (13 14 15 16)

Call Received ☐☐:☐☐ (17 18 19 20)

Ambulance en Route ☐☐:☐☐ (21 22 23 24)

Arrived Location ☐☐:☐☐ (25 26 27 28)

Departed Location ☐☐:☐☐ (29 30 31 32)

Arrived Destination ☐☐:☐☐ (33 34 35 36)

Ready for Service ☐☐:☐☐ (37 38 39 40)

PATIENT TAKEN FROM: (LOCATION) A ☐ 41

____

STREET HWY. RT. NEAREST INTERSECTION B ☐ 42

____

CITY STATE ZIP

PATIENT TAKEN TO: (DESTINATION) C ☐ 43

____

HOSPITAL OR OTHER DESTINATION

MILEAGE:

To Location ☐☐☐ (52 53 54)

From Location to Destination ☐☐☐ (55 56 57)

To Base ☐☐☐ (58 59 60)

Total ☐☐☐

CREW:

____________ DRIVER

____________ ATTENDANT

____________ ATTENDANT

D ☐ 76 E ☐ 77 F ☐ 78 G ☐ 79

COMMENTS:

AMBULANCE COPY

Appendix B-7

Do not write in these spaces ▶ ☐☐☐☐☐☐ 6 7 8 9 10 11

COUNTY AND AGENCY CODES ☐☐☐☐☐ 1 ... 1 AMBULANCE # ☐☐☐ 14 15 16 CASE/RUN # ☐☐☐ 19 20 21

AMBULANCE REPORT

AGE YEARS ☐☐ 22 23

(Only for Infants under 1 Year) MONTHS ☐☐ 24 25

AGENCY NAME ____________________

PATIENT NAME ____________________

HOME ADDRESS ____________________ SEX M ☐ 26 F ☐

____________________ TELEPHONE # ____________________

INSURANCE CARRIER # ____________________ ☐ MEDIC ALERT TAG ____________

Date of Run → MONTH DAY YEAR ☐☐☐☐☐☐ 41 42 ... 46

47 ☐ Same as Above

Date of Incident ☐☐☐☐☐☐ 48 49 ... 52

5 **TIME:**

Incident Occurred	☐☐:☐☐ 13 14 15 16
Call Received	☐☐:☐☐ 17 18 19 20
Ambulance en Route	☐☐:☐☐ 21 22 23 24
Arrived Location	☐☐:☐☐ 25 26 27 28
Departed Location	☐☐:☐☐ 29 30 31 32
Arrived Destination	☐☐:☐☐ 33 34 35 36
Ready for Service	☐☐:☐☐ 37 38 39 40

PATIENT TAKEN FROM: (LOCATION) A ☐ 41

____
STREET HWY. RT. NEAREST INTERSECTION B ☐ 42

____
CITY STATE ZIP

PATIENT TAKEN TO: (DESTINATION) C ☐ 43

____
HOSPITAL OR OTHER DESTINATION

MILEAGE:

To Location	☐☐☐ 52 53 54
From Location to Destination	☐☐☐ 55 56 57
To Base	☐☐☐ 58 59 60
Total	☐☐☐

CREW:

____
DRIVER

____
ATTENDANT

____
ATTENDANT

D ☐ 76 E ☐ 77 F ☐ 78 G ☐ 79

SUSPECTED ILLNESS

- 27 ☐ Abortion/Miscarriage
- 28 ☐ Asthma
- 29 ☐ Cardiac Problems
- 30 ☐ Communicable Disease
- 31 ☐ Emphysema
- 32 ☐ Insulin Shock
- 33 ☐ Maternity
- 34 ☐ Stroke/CVA
- 35 ☐ Not Determined
- 36 ☐ Other

____
SPECIFY

CAUSE OF INJURY

- 39 ☐ Motor Vehicle Collision
- 40 ☐ Vehicle/Ped. Incident
- 41 ☐ Motorcycle/Bike
- 42 ☐ Violence
- 43 ☐ Electrical
- 44 ☐ Fall
- 45 ☐ Immersion
- 46 ☐ Mechanical Equipment
- 47 ☐ Recreation Activity

____
SPECIFY

- 48 ☐ Other

____
SPECIFY

SYMPTOMS

Abnormal behavior similar to:

- 51 ☐ Alcohol intake
- 52 ☐ Drug Overdose
- 53 ☐ Mental Condition

Bleeding:

- 54 ☐☐ ☐ Minor
- 57 ☐☐ ☐ Moderate
- 60 ☐☐ ☐ Severe
- 63 ☐ Breathing Diff.
- 64 ☐ Resp. Arrest
- 65 ☐ Cardiac Arrest
- 66 ☐ Card. Arrhythmia
- 67 ☐ Chills
- 68 ☐ Convulsions
- 69 ☐ Cyanosis
- 70 ☐ Fever
- 71 ☐ Nausea/Vomiting
- 72 ☐☐ ☐ Pain
- 75 ☐ Shock
- 76 ☐ Weak/Faint
- 77 ☐ Other
- 78 ☐ None

2 **SITES**

- 13 ☐☐ ☐ Head
- 16 ☐☐ ☐ Eye
- 19 ☐☐ ☐ Face
- 22 ☐☐ ☐ Neck
- 25 ☐☐ ☐ Upper Arm–Shldr.
- 28 ☐☐ ☐ Lower Arm–Elbow
- 31 ☐☐ ☐ Wrist-Hand-Fingers
- 34 ☐☐ ☐ Back
- 37 ☐☐ ☐ Chest
- 40 ☐☐ ☐ Abdomen
- 43 ☐☐ ☐ Pelvic Region
- 46 ☐☐ ☐ Upper Leg–Hip
- 49 ☐☐ ☐ Lower Leg–Knee
- 52 ☐☐ ☐ Ankle-Foot-Toes
- 55 ☐☐ ☐ Multiple

CONSCIOUSNESS

- ☐1 Conscious
- ☐2 Semi-Conscious
- ☐3 Unconscious

56

CONDITION EN ROUTE

- ☐1 Improved
- ☐2 Unchanged
- ☐3 Worsened

57

3 **SUSPECTED INJURY**

- 13 ☐☐ ☐ Abrasion
- 16 ☐☐ ☐ Amputation
- 19 ☐☐ ☐ Asphyxiation
- 22 ☐☐ ☐ Avulsion
- 25 ☐☐ ☐ Burn
- 28 ☐☐ ☐ Concussion
- 31 ☐☐ ☐ Contusion-Bruise
- 34 ☐☐ ☐ Crushing
- 37 ☐☐ ☐ Dislocation
- 40 ☐☐ ☐ Fracture
- 43 ☐☐ ☐ Internal
- 46 ☐☐ ☐ Laceration/Cut
- 49 ☐☐ ☐ Poisoning
- 52 ☐☐ ☐ Puncture
- 55 ☐☐ ☐ Sprain/Strain
- 58 ☐☐ ☐ Other ____________ SPECIFY
- 61 ☐☐ ☐ Not Determined

☐☐☐☐ 44 45 46 47
☐☐☐☐ 48 49 50 51
DO NOT WRITE IN THE ABOVE SPACES

4 **AID GIVEN TO PATIENT:** ☐1 At Scene ☐2 EnRoute

- 13 ☐☐ Cleared Airway
- 14 ☐☐ Suctioned Airway
- 15 ☐☐ Airway Tube
- 16 ☐☐ Endotracheal Tube
- 17 ☐☐ Artificial Respiration
- 18 ☐☐ Oxygen
- 19 ☐☐ Defibrillator
- 20 ☐☐ Monitor (Cardiac)
- 21 ☐☐ Cardiac Compression

____
TIME STARTED

- 22 ☐☐ Controlled Bleeding
- 23 ☐☐ Bandaging
- 24 ☐☐ Obstetrical Delivery
- 25 ☐☐ Cold Application
- 26 ☐☐ Neck/Spine Immobilization
- 27 ☐☐ Limb Splints
- 28 ☐☐ Traction Applied
- 29 ☐☐ Psychological First-Aid
- 30 ☐☐ Transportation Only
- 31 ☐☐ Medications:

____
TYPE & AMOUNT

- 32 ☐☐ IV Fluids:

____
TYPE & AMOUNT

- 33 ☐☐ Other (explain)

____

VITAL SIGNS:

B/P ______/______ ______/______

Pulse ____________ ____________

Resp. ____________ ____________

PUPILS

- 34 ☐ Equal
- 35 ☐ Unequal
- 36 ☐ Dilated
- 37 ☐ Constricted
- 38 ☐ Right Larger
- 39 ☐ Left Larger
- 40 ☐ No Reaction to Light

COMMENTS:

HOSPITAL COPY

Do not write in these spaces ▶ ☐☐☐☐☐ 6 7 8 9 10 11

COPIES ☐☐ 4 5 1

AMBULANCE # ☐☐☐ 14 15 16

CASE/RUN # ☐☐☐ 19 20 21

AMBULANCE REPORT

AGE YEARS ☐☐ 22 23

(Only for Infants under 1 Year) MONTHS ☐☐ 24 25

SEX M ☐ 26 F ☐

AGENCY NAME ____________________

[redacted]

Date of Run – MONTH YEAR

47 ☐ Same as Above

Date of Incident 48 49

5 **TIME:** MILITARY

Incident Occurred	☐☐☐☐ 13 14 15 16
Call Received	☐☐☐☐ 17 18 19 20
Ambulance en Route	☐☐☐☐ 21 22 23 24
Arrived Location	☐☐☐☐ 25 26 27 28
Departed Location	☐☐☐☐ 29 30 31 32
Arrived Destination	☐☐☐☐ 33 34 35 36
Ready for Service	☐☐☐☐ 37 38 39 40

SUSPECTED ILLNESS

27 ☐ Abortion/Miscarriage
28 ☐ Asthma
29 ☐ Cardiac Problems
30 ☐ Communicable Disease
31 ☐ Emphysema
32 ☐ Insulin Shock
33 ☐ Maternity
34 ☐ Stroke/CVA
35 ☐ Not Determined
36 ☐ Other

SPECIFY ____________

CAUSE OF INJURY

38 ☐ Motor Vehicle Collision
40 ☐ Vehicle/Ped. Incident
41 ☐ Motorcycle/Bike
42 ☐ Violence
43 ☐ Electrical
44 ☐ Fall
45 ☐ Immersion
46 ☐ Mechanical Equipment
47 ☐ Recreation Activity

SPECIFY ____________

48 ☐ Other

SPECIFY ____________

SYMPTOMS

Abnormal behavior similar to:

51 ☐ Alcohol intake
52 ☐ Drug Overdose
53 ☐ Mental Condition

Bleeding:

54 ☐☐ ☐ Minor
57 ☐☐ ☐ Moderate
60 ☐☐ ☐ Severe
63 ☐ Breathing Diff.
64 ☐ Resp. Arrest
65 ☐ Cardiac Arrest
66 ☐ Card. Arrhythmia
67 ☐ Chills
68 ☐ Convulsions
69 ☐ Cyanosis
70 ☐ Fever
71 ☐ Nausea/Vomiting
72 ☐☐ ☐ Pain
75 ☐ Shock
76 ☐ Weak/Faint
77 ☐ Other
78 ☐ None

2 **SITES**

13 ☐☐ ☐ Head
16 ☐☐ ☐ Eye
19 ☐☐ ☐ Face
22 ☐☐ ☐ Neck
25 ☐☐ ☐ Upper Arm–Shldr.
28 ☐☐ ☐ Lower Arm–Elbow
31 ☐☐ ☐ Wrist-Hand-Fingers
34 ☐☐ ☐ Back
37 ☐☐ ☐ Chest
40 ☐☐ ☐ Abdomen
43 ☐☐ ☐ Pelvic Region
46 ☐☐ ☐ Upper Leg–Hip
49 ☐☐ ☐ Lower Leg–Knee
52 ☐☐ ☐ Ankle–Foot–Toes
55 ☐☐ ☐ Multiple

CONSCIOUSNESS

☐ 1 Conscious
☐ 2 Semi-Conscious
☐ 3 Unconscious
66

CONDITION EN ROUTE

☐ 1 Improved
☐ 2 Unchanged
☐ 3 Worsened
57

3 **SUSPECTED INJURY**

13 ☐☐ ☐ Abrasion
16 ☐☐ ☐ Amputation
19 ☐☐ ☐ Asphyxiation
22 ☐☐ ☐ Avulsion
25 ☐☐ ☐ Burn
28 ☐☐ ☐ Concussion
31 ☐☐ ☐ Contusion-Bruise
34 ☐☐ ☐ Crushing
37 ☐☐ ☐ Dislocation
40 ☐☐ ☐ Fracture
43 ☐☐ ☐ Internal
46 ☐☐ ☐ Laceration/Cut
49 ☐☐ ☐ Poisoning
52 ☐☐ ☐ Puncture
55 ☐☐ ☐ Sprain/Strain
58 ☐☐ ☐ Other

SPECIFY ____________

61 ☐☐ ☐ Not Determined

☐☐☐☐ 44 45 46 47
☐☐☐☐ 48 49 50 51

DO NOT WRITE IN THE ABOVE SPACES

PATIENT TAKEN FROM: (LOCATION) A ☐ 41

STREET HWY. RT. NEAREST INTERSECTION B ☐ 42

CITY STATE ZIP

PATIENT TAKEN TO: (DESTINATION) C ☐ 43

HOSPITAL OR OTHER DESTINATION

MILEAGE:

To Location	☐☐☐ 52 53 54
From Location to Destination	☐☐☐ 55 56 57
To Base	☐☐☐ 58 59 60
Total	☐☐☐

CREW:

____________ DRIVER

____________ ATTENDANT

____________ ATTENDANT

D ☐ 76 E ☐ 77 F ☐ 78 G ☐ 79

4 **AID GIVEN TO PATIENT:** ☐ 1 At Scene ☐ 2 En Route

13 ☐☐ Cleared Airway
14 ☐☐ Suctioned Airway
15 ☐☐ Airway Tube
16 ☐☐ Endotracheal Tube
17 ☐☐ Artificial Respiration
18 ☐☐ Oxygen
19 ☐☐ Defibrillator
20 ☐☐ Monitor (Cardiac)
21 ☐☐ Cardiac Compression

____________ TIME STARTED

22 ☐☐ Controlled Bleeding
23 ☐☐ Bandaging
24 ☐☐ Obstetrical Delivery
25 ☐☐ Cold Application
26 ☐☐ Neck/Spine Immobilization
27 ☐☐ Limb Splints
28 ☐☐ Traction Applied
29 ☐☐ Psychological First-Aid
30 ☐☐ Transportation Only
31 ☐☐ Medications:

____________ TYPE & AMOUNT

32 ☐☐ IV Fluids:

____________ TYPE & AMOUNT

33 ☐☐ Other (explain)

____

VITAL SIGNS:

B/P ______/______ ______/______

Pulse ____________ ____________

Resp. ____________ ____________

PUPILS

34 ☐ Equal
35 ☐ Unequal
36 ☐ Dilated
37 ☐ Constricted
38 ☐ Right Larger
39 ☐ Left Larger
40 ☐ No Reaction to Light

COMMENTS:

RESEARCH COPY

"MUTUAL AID AGREEMENT" BETWEEN COUNTIES IN CIVIL DEFENSE DISTRICT NO. 5

WHEREAS, McCone COUNTY is subject to military attack and other disasters, the damage from which could be greater than any individual political subdivision could adequately cope with alone, and,

WHEREAS, it is lawful and in the public interest that a Mutual Aid Agreement providing a method whereby the various counties within Civil Defense District No. 5 agree to furnish medical engineering, fire, transportation, law enforcement and welfare services to McCone County should it be stricken by a military or natural disaster, and,

WHEREAS, such mutual aid is reasonable and such agreements are permitted under the terms of the Montana Civil Defense Act of 1951, as amended,

WHEREAS, requests for and movements of such mutual aid must be coordinated from a central dispatching headquarters with authority to direct such movements, and,

WHEREAS, the District no. 5 State Civil Defense Agency Office has been established to encompass this work in conformity with Montana Civil Defense Act of 1951, as amended, and,

WHEREAS, it is to the mutual advantage of McCone County and the counties within Civil Defense District No. 5 boundaries to lend mutual aid and assistance one to the other in time of need,

NOW, THEREFORE, in consideration of the mutual covenants herein contained, the County of McCone agrees as follows:

(1) McCone County will furnish the Civil Defense District No. 5 Office an inventory of its facilities, equipment and manpower available for use in civil defense in accordance with specific inventory listing.

(2) Whenever any party to this agreement suffers a disaster which requires additional aid beyond that which said party is able to provide for itself, each other party to this agreement, at the request of the stricken party through coordination with the Civil Defense District No. 5 Office, agrees to loan to such stricken party the maximum amount of equipment, facilities and manpower that it can reasonably spare at that time.

(3) The lending party shall be responsible for the delivery of such equipment, facilities and manpower to the stricken area.

(4) Any and all equipment so loaned shall be delivered to locations coordinated by the Civil Defense District No. 5 Office and upon arrival at said location all equipment and manpower loaned shall be under the control and jurisdiction of the receiving party and shall be used and controlled under the provisions of the Montana Civil Defense Act of 1951, as amended.

(5) All equipment, facilities and manpower so loaned shall be returned upon demand of the lending party or when released by the receiving party.

(6) Any party County rendering aid in another County pursuant to this agreement shall be reimbursed by the party County receiving such aid for any loss or damage to, or expense incurred in the operation of any equipment answering a request for aid, and for the cost incurred in connection with such requests; provided, that any

aiding party County may assume in whole or in part such loss, damage, expense or other cost, or may loan such equipment or donate such services to the receiving party County without charge or cost; and provided further, that any two or more party Counties may enter into supplementary agreements establishing a different allocation of costs as among those counties.

(7) Whenever any party to this agreement loans equipment, facilities or manpower as provided herein, such lending party may thereupon request implementation of a "moveup" plan whereby other subdivisions which are parties to this agreement will move a portion of their corresponding manpower or equipment into the depleted area so as to provide a measure of protection to that area.

(8) Each party to this agreement will provide upon request from any other party through coordination with Civil Defense District No. 5 Office, all possible facilities for receiving and caring for evacuees and disabled persons, and all persons so evacuated upon arrival at the receiving area shall be under the control of the party giving aid.

(9) Any party to this agreement may withdraw from the same at any time by giving thirty days' written notice to all other parties to this agreement.

IN WITNESS WHEREOF, the County of McCone has caused this agreement to be signed and attested by the officers shown and the corporate seal of such county to be affixed, this 6th day of May, 1969.

THE COUNTY OF McCone

Chairman, Board of County Commissioners

Member

Member

Attest:

Clerk and Recorder

(1970)

SELECTED DEMOGRAPHIC CHARACTERISTICS OF MONTANA COUNTIES

BY PLANNING REGION

REGION I

Counties	SQM	Pop.	Density	Rural	Urban	Percent Rural
Beaverhead	5,580	8,187	1.5	3,639	4,548	44.4%
Deer Lodge	741	15,652	21.1	5,881	9,771	37.6%
Flathead	5,280	39,460	7.5	22,933	16,527	58.1%
Granite	1,737	2,737	1.6	2,737		100.0%
Lake	1,655	14,445	8.7	14,445		100.0%
Lincoln	3,728	18,063	4.8	14,777	3,286	81.8%
Madison	3,541	5,014	1.4	5,014		100.0%
Mineral	1,223	2,958	2.4	2,958		100.0%
Missoula	2,624	58,263	22.2	14,732	43,531	25.3%
Powell	2,340	6,660	2.8	2,354	4,306	35.3%
Ravalli	2,388	14,409	6.0	14,409		100.0%
Sanders	2,819	7,093	2.5	7,093		100.0%
Silver Bow	716	41,981	58.6	9,776	34,005	19.0%
TOTAL	34,372	234,922	6.8	120,748	115,974	51.4%

(1970)

SELECTED DEMOGRAPHIC CHARACTERISTICS OF MONTANA COUNTIES

BY PLANNING REGION

REGION 2

Counties	SQM	Pop.	Density	Rural	Urban	Percent Rural
Blaine	4,279	6,727	1.6	6,727		100.0%
Broadwater	1,245	2,526	2.0	2,526		100.0%
Cascade	2,673	81,804	30.6	10,899	70,905	13.3%
Chouteau	3,936	6,473	1.6	6,473		100.0%
Gallatin	2,540	32,505	12.8	13,835	18,670	42.6%
Glacier	3,006	10,783	3.6	6,779	4,004	62.9%
Hill	2,946	17,358	5.9	6,800	10,558	39.2%
Jefferson	1,654	5,238	3.2	5,238		100.0%
Lewis & Clark	3,513	33,281	9.5	10,551	22,730	31.7%
Liberty	1,459	2,359	1.6	2,359		100.0%
Meagher	2,356	2,122	0.9	2,122		100.0%
Park	2,631	11,197	4.3	4,314	6,883	38.5%
Pondera	1,654	6,611	4.0	3,841	2,770	58.1%
Teton	2,310	6,116	2.6	6,116		100.0%
Toole	1,965	5,839	3.0	2,728	3,111	46.7%
TOTAL	38,167	230,939	6.1	91,308	139,631	39.5%

Yellowstone National Park (Part)	269
Total Land Area	38,436

Appendix B-9

(1970)

SELECTED DEMOGRAPHIC CHARACTERISTICS OF MONTANA COUNTIES

BY PLANNING REGION

REGION 3

Counties	SQM	Pop.	Density	Rural	Urban	Percent Rural
Big Horn	5,055	10,057	2.0	7,324	2,733	72.8%
Carbon	2,074	7,080	3.4	7,080		100.0%
Carter	3,313	1,956	0.6	1,956		100.0%
Custer	3,775	12,174	3.2	3,151	9,023	25.9%
Daniels	1,443	3,083	2.1	3,083		100.0%
Dawson	2,380	11,269	4.7	4,964	6,305	44.1%
Fallon	1,633	4,050	2.5	1,466	2,584	36.2%
Fergus	4,253	12,611	3.0	6,174	6,437	49.0%
Garfield	4,812	1,796	0.4	1,796		100.0%
Golden Valley	1,180	931	0.8	931		100.0%
Judith Basin	1,880	2,667	1.4	2,667		100.0%
McCone	2,652	2,875	1.1	2,875		100.0%
Musselshell	1,887	3,734	2.0	3,734		100.0%
Petroleum	1,672	675	0.4	675		100.0%
Phillips	5,287	5,386	1.0	5,386		100.0%
Powder River	3,298	2,862	0.9	2,862		100.0%
Prairie	1,739	1,752	1.0	1,752		100.0%
Richland	2,103	9,837	4.7	5,294	4,543	53.8%
Roosevelt	2,399	10,365	4.3	7,270	3,095	70.0%
Rosebud	5,042	6,032	1.2	6,032		100.0%
Sheridan	1,720	5,779	3.4	5,779		100.0%
Stillwater	1,801	4,632	2.6	4,632		100.0%
Sweet Grass	1,849	2,980	1.6	2,980		100.0%
Treasure	997	1,069	1.1	1,069		100.0%
Valley	5,104	11,471	2.2	6,771	4,700	59.0%
Wheatland	1,425	2,529	1.8	2,529		100.0%
Wibaux	891	1,465	1.6	1,465		100.0%
Yellowstone	2,666	87,367	32.8	11,716	75,651	13.4%
TOTAL	74,330	228,484	3.1	113,413	115,071	46.9%

MONTANA POPULATION PROJECTIONS
1975 and 1980

Region I

County	1975	1980
Beaverhead	8,882	9,606
Deer Lodge	14,212	12,710
Flathead	43,377	47,645
Granite	2,637	2,456
Lake	15,188	15,881
Lincoln	21,997	26,617
Madison	4,911	4,699
Mineral	2,956	2,874
Missoula	67,256	77,603
Powell	6,528	6,311
Sanders	7,222	7,268
Silver Bow	39,783	37,508
Ravalli	15,608	16,802
TOTAL	250,557	267,980

Note: These population projections are based upon the assumption that the county 1960-1970 birth, death and migration rates remain constant through 1980.

Source -- Information Services Bureau
Montana Dept. of Intergovernmental Relations, 1974

MONTANA POPULATION PROJECTIONS
1975 and 1980

Region 2

County	1975	1980
Blaine	6,136	5,503
Broadwater	2,431	2,260
Cascade	87,171	93,213
Chouteau	6,067	5,568
Gallatin	36,034	39,661
Hill	16,763	16,104
Glacier	10,365	9,835
Jefferson	5,874	6,527
Lewis and Clark	36,372	39,666
Liberty	2,239	2,033
Meagher	1,947	1,713
Park	10,242	9,201
Pondera	6,120	5,539
Teton	5,569	4,949
Toole	4,983	4,140
TOTAL	238,313	245,912

Note: These population projections are based upon the assumption that the county 1960-1970 birth, death and migration rates remain constant through 1980.

Source -- Information Services Bureau
Montana Dept. of Intergovernmental Relations, 1974

MONTANA POPULATION PROJECTIONS
1975 and 1980

Region 3

County	1975	1980
Big Horn	10,145	10,174
Carbon	6,495	5,838
Carter	1,766	1,514
Custer	11,629	10,971
Daniels	2,787	2,413
Dawson	10,776	10,194
Fallon	4,099	4,067
Fergus	11,894	11,073
Garfield	1,739	1,611
Golden Valley	851	717
Judith Basin	2,485	2,208
McCone	2,695	2,434
Musselshell	3,269	2,773
Petroleum	626	511
Phillips	5,089	4,708
Powder River	3,167	3,454
Prairie	1,553	1,291
Richland	9,513	9,088
Roosevelt	9,716	8,986
Rosebud	6,012	5,930
Sheridan	5,440	4,998
Stillwater	4,233	3,773
Sweet Grass	2,864	2,665
Treasure	996	865
Valley	9,404	7,727
Wheatland	2,331	2,053
Wibaux	1,388	1,237
Yellowstone	91,976	96,775
TOTAL	224,938	220,048

Note: These population projections are based upon the assumption that the county 1960-1970 birth, death and migration rates remain constant through 1980.

Source -- Information Services Bureau
Montana Dept. of Intergovernmental Relations, 1974

SEX DISTRIBUTION OF MONTANA COUNTIES

REGION I

Counties	Male	Female	Total
Beaverhead	4,219	3,968	8,197
Deer Lodge	7,918	7,734	15,652
Flathead	19,599	19,861	39,460
Granite	1,399	1,338	2,737
Lake	7,261	7,184	14,445
Lincoln	9,326	8,737	18,063
Madison	2,576	2,438	5,014
Mineral	1,504	1,454	2,958
Missoula	29,175	29,088	58,263
Powell	3,497	3,163	6,660
Ravalli	7,138	7,271	14,409
Sanders	3,610	3,483	7,093
Silver Bow	20,449	21,532	41,981
TOTAL	117,671	117,251	234,922

SEX DISTRIBUTION OF MONTANA COUNTIES

REGION 2

Counties	Male	Female	Total
Blaine	3,487	3,240	6,727
Broadwater	1,278	1,248	2,526
Cascade	40,965	40,839	81,804
Chouteau	3,324	3,149	6,473
Gallatin	16,618	15,887	32,505
Glacier	5,382	5,401	10,783
Hill	8,779	8,579	17,358
Jefferson	2,664	2,574	5,238
Lewis & Clark	16,092	17,189	33,281
Liberty	1,200	1,159	2,359
Meagher	1,153	969	2,122
Park	5,508	5,689	11,197
Pondera	3,268	3,343	6,611
Teton	3,152	2,964	6,116
Toole	2,906	2,933	5,839
TOTAL	115,776	115,163	230,939

Appendix B-9

SEX DISTRIBUTION OF MONTANA COUNTIES

REGION 3

Counties	Male	Female	Total
Big Horn	4,990	5,067	10,057
Carbon	3,559	3,521	7,080
Carter	1,017	939	1,956
Custer	5,955	6,219	12,174
Daniels	1,568	1,515	3,083
Dawson	5,621	5,648	11,269
Fallon	1,996	2,054	4,050
Fergus	6,326	6,285	12,611
Garfield	950	846	1,796
Golden Valley	479	452	931
Judith Basin	1,380	1,287	2,667
McCone	1,507	1,368	2,875
Musselshell	1,891	1,843	3,734
Petroleum	376	299	675
Phillips	2,759	2,627	5,386
Powder River	1,455	1,407	2,862
Prairie	898	854	1,752
Richland	4,860	4,977	9,837
Roosevelt	5,156	5,209	10,365
Rosebud	3,051	2,981	6,032
Sheridan	2,940	2,839	5,779
Stillwater	2,338	2,294	4,632
Sweet Grass	1,556	1,424	2,980
Treasure	530	539	1,069
Valley	5,852	5,619	11,471
Wheatland	1,315	1,214	2,529
Wibaux	741	724	1,465
Yellowstone	42,460	44,907	87,367
TOTAL	113,526	114,958	228,484

Appendix B-10

Emergency Medical Related Deaths
By Occurrence
1972

Region I

Counties	Accidents			Suicide	Homicide	Heart Attacks	Total
	Total	Motor Vehicle	All Others				
Beaverhead	4		4	1		11	16
Deer Lodge	19	8	11	1	1	33	54
Flathead	31	18	13	9	1	67	108
Granite	2		2			4	6
Lake	20	13	7	2		28	50
Lincoln	12	5	7	4		30	46
Madison	7	5	2			4	11
Mineral	4	1	3			6	10
Missoula	53	22	31	6	4	76	139
Powell	4	2	2	4		17	25
Sanders	13	6	7	1		15	29
Silver Bow	36	19	17	6	5	125	172
Ravalli	16	14	2	4	1	29	50
TOTAL	221	113	108	38	12	445	716

Emergency Medical Related Deaths
By Occurrence
1972

Region 2

	Accidents						
Counties	Total	Motor Vehicle	All Others	Suicide	Homicide	Heart Attacks	Total
Blaine	13	10	3	1	1	7	22
Broadwater	7	3	4			3	10
Cascade	46	22	24	8	3	85	142
Chouteau	5	4	1			8	13
Gallatin	18	10	8		1	37	56
Hill	15	11	4	7		33	55
Glacier	12	9	3	2	1	23	38
Jefferson	4	3	1			5	9
Lewis & Clark	37	22	15	5	2	54	98
Liberty				1		9	10
Meagher	5	4	1			8	18
Park	13	10	3	1		27	41
Pondera	6	4	2			9	15
Teton	8	4	4	1		9	18
Toole	4	3	1	2	1	21	28
TOTAL	193	119	74	28	9	338	568

Emergency Medical Related Deaths
By Occurrence
1972

Region 3

Counties	Accidents Total	Accidents Motor Vehicle	Accidents All Others	Suicide	Homicide	Heart Attacks	Total
Big Horn	6	4	2	2	2	15	25
Carbon	9	3	6	2		18	29
Carter	1		1	1		2	4
Custer	22	14	8	1		19	42
Daniels	3		3			6	9
Dawson	8	7	1			20	28
Fallon	4	3	1			7	11
Fergus	1		1			4	5
Garfield	13	7	6	2		24	39
Golden Valley	1		1			2	3
Judith Basin	3	1	2				3
McCone	6	6				4	10
Musselshell	3	2	1			22	25
Petroleum	2	1	1			1	3
Phillips	6	3	3			8	14
Powder River				1		3	4
Prairie	1		1			1	2
Richland	13	9	4			20	33
Roosevelt	17	11	6	1	1	25	44
Rosebud	4	4		1	2	8	15
Sheridan	5	3	2			21	26
Stillwater	5	3	2			11	16
Sweet Grass	2		2	1		10	13
Treasure	3	1	2			1	4
Valley	10	7	3		1	15	26
Wheatland	8	4	4		1	4	13
Wibaux							
Yellowstone	65	35	30	9	4	104	182
TOTAL	221	128	93	21	11	375	628

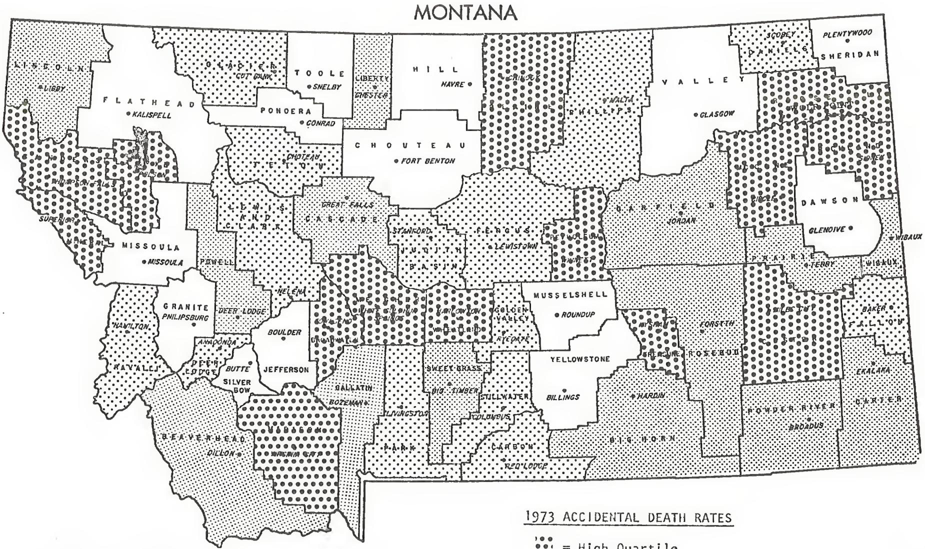
Appendix B-11

RANK ORDER OF ACCIDENTAL DEATH RATES BY RESIDENCE
PER 10,000 POPULATION
MONTANA COUNTIES - 1973

RANK 1973	COUNTY	RATE	RANK 1972
1	Judith Basin	38.5	19-20
2	McCone	21.4	6
3	Mineral	21.2	13
4	Liberty	20.0	54-56
5	Powder River	19.0	54-56
6	Chouteau	18.6	37
7	Treasure	18.2	3
8	Big Horn	18.0	46-47
9	Petroleum	16.7	2
10	Valley	16.5	31-32
11	Lake	15.4	12
12	Lincoln	14.1	44-45
13	Glacier	14.0	19-20
14	Rosebud	13.6	44-45
15	Sweet Grass	13.3	43
16	Silver Bow	12.8	33-34
17	Blaine	11.8	7
18	Beaverhead	11.3	53
19	Garfield	11.1	49-50
20	Toole	10.9	42
21	Stillwater	10.4	24
22	Deer Lodge	10.1	17
23	Flathead	9.9	36
24	Meagher	9.1	5
25-26	Carbon	9.0	16
	Roosevelt	9.0	10
27	Ravalli	8.9	20-23
28-29	Custer	8.0	9
	Wheatland	8.0	1
30	Fergus	7.9	26
31	Granite	7.7	40
32	Jefferson	7.5	38
33	Broadwater	7.4	4
34	Musselshell	7.3	35
35-36	Madison	7.1	11
	Wibaux	7.1	54-56
37	Missoula	7.0	29-30
38-39	Daniels	6.5	28
	Lewis & Clark	6.5	21-23
40	Dawson	6.4	41
41	Yellowstone	6.3	39
42	Teton	6.1	15
43	Sheridan	5.5	31-32
44-45	Sanders	5.4	8
	Cascade	5.4	49-50
46	Fallon	5.3	27
47	Richland	5.2	14
48	Park	5.1	18
49	Prairie	5.0	48
50	Gallatin	4.7	51
51	Hill	4.5	33-34
52	Powell	4.4	46-47
53	Pondera	2.8	29-30
54	Phillips	1.9	20-23
55	Carter	0	52
56	Golden Valley	0	25

8.5 = STATEWIDE RATE

5.5 = U.S. RATE



1973 ACCIDENTAL DEATH RATES

● = High Quartile

⁘ = Upper Middle Quartile

☐ = Lower Middle Quartile

░ = Low Quartile

No. 1052 — County Outline Map
STATE PUBLISHING COMPANY
Helena
3 80 Pads - A - WH

RANK ORDER OF MONTANA COUNTIES FOR ACCIDENTAL DEATHS
ALL CAUSES - 1973

HIGH QUARTILE	Rank	County	No. of Deaths
	1	Yellowstone	61
	2	Missoula	55
	3	Silver Bow	50
	4	Cascade	41
	5	Flathead	39
	6	Lewis & Clark	22
	7	Lincoln	21
	8	Lake	21
	9	Big Horn	21
	10	Gallatin	18
	11	Glacier	14
	12-13	Valley	13
		Ravalli	13

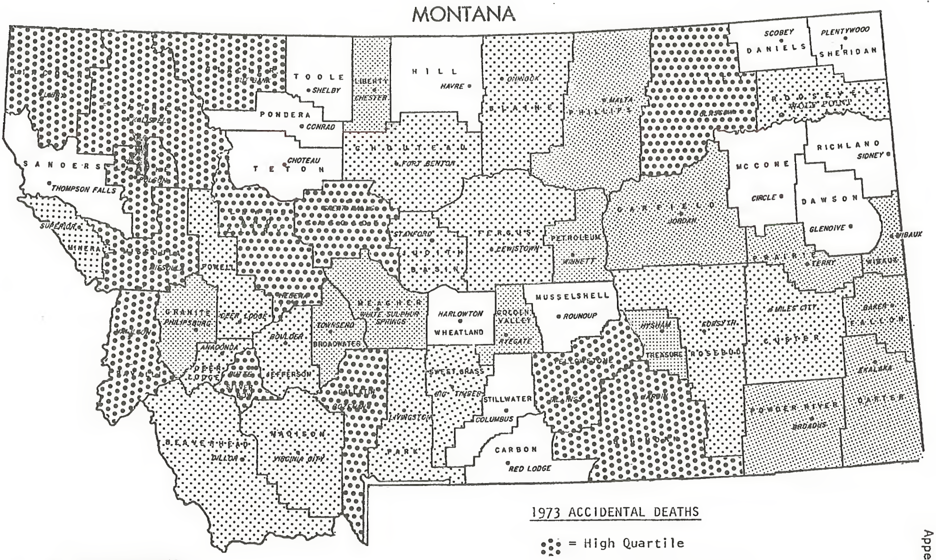
UPPER MIDDLE QUARTILE	Rank	County	No. of Deaths
	14-16	Powell	12
		Park	12
		Choteau	12
	17-19	Mineral	11
		Judith Basin	11
		Custer	11
	20-21	Roosevelt	10
		Deer Lodge	10
	22-23	Rosebud	9
		Madison	9
	24-25	Jefferson	8
		Fergus	8
	26-27	Sweet Grass	7
		Beaverhead	7
	28	Blaine	6

LOWER MIDDLE QUARTILE	Rank	County	No. of Deaths
	29-35	Sheridan	5
		Pondera	5
		McCone	5
		Hill	5
		Dawson	5
		Daniels	5
		Carbon	5
	36-42	Wheatland	4
		Toole	4
		Teton	4
		Stillwater	4
		Sanders	4
		Richland	4
		Musselshell	4

LOW QUARTILE	Rank	County	No. of Deaths
	43-45	Wibaux	3
		Prairie	3
		Liberty	3
	46-51	Fallon	2
		Phillips	2
		Petroleum	2
		Meagher	2
		Granite	2
		Broadwater	2
	52-56	Treasure	1
		Powder River	1
		Golden Valley	1
		Garfield	1
		Carter	1

MEDIAN = 5.5

MEAN = 12.3



1973 ACCIDENTAL DEATHS

● = High Quartile

∴ = Upper Middle Quartile

☐ = Lower Middle Quartile

▨ = Low Quartile

No. 1052 — County Outline Map
STATE PUBLISHING COMPANY
Helena
3 80 Pads - A - WH

RANK ORDER OF MONTANA COUNTIES FOR ACCIDENTAL DEATHS RELATED TO MOTOR VEHICLES - 1973

Rank	County	No. of Deaths
1	Yellowstone	40
2	Missoula	37
3	Flathead	21
4	Silver Bow	16
5	Cascade	15
6-7	Lake	12
	Big Horn	12
8	Gallatin	11
9-13	Powell	10
	Lincoln	10
	Lewis & Clark	10
	Glacier	10
	Chouteau	10
14-16	Sweet Grass	7
	Park	7
	Custer	7
17-20	Rosebud	6
	Ravalli	6
	Mineral	6
	Jefferson	6
21-23	Roosevelt	5
	Fergus	5
	Deer Lodge	5
24-31	Valley	3
	Stillwater	3
	Richland	3
	Musselshell	3
	Liberty	3
	Carbon	3
	Blaine	3
	Beaverhead	3
32-45	Wibaux	2
	Wheatland	2
	Toole	2
	Sheridan	2
	Prairie	2
	Phillips	2
	Petroleum	2
	Meagher	2
	Madison	2
	Judith Basin	2
	Hill	2
	Fallon	2
	Dawson	2
	Daniels	2
46-53	Treasure	1
	Sanders	1
	Pondera	1
	McCone	1
	Granite	1
	Golden Valley	1
	Garfield	1
	Broadwater	1
54-56	Teton	0
	Powder River	0
	Carter	0

MEDIAN = 3.0

MEAN = 6.0

RANK ORDER OF MONTANA COUNTIES FOR ACCIDENTAL DEATHS OTHER THAN MOTOR VEHICLE - 1973

Rank	County	No. of Deaths
1	Silver Bow	34
2	Cascade	26
3	Yellowstone	21
4-5	Flathead	18
	Missoula	18
6	Lewis & Clark	12
7	Lincoln	11
8	Valley	10
9-11	Big Horn	9
	Judith Basin	9
	Lake	9
12-14	Gallatin	7
	Madison	7
	Ravalli	7
15-18	Deer Lodge	5
	Mineral	5
	Park	5
	Roosevelt	5
19-24	Beaverhead	4
	Custer	4
	Glacier	4
	McCone	4
	Pondera	4
	Teton	4
25-32	Blaine	3
	Daniels	3
	Dawson	3
	Fergus	3
	Hill	3
	Rosebud	3
	Sanders	3
	Sheridan	3
33-38	Carbon	2
	Chouteau	2
	Jefferson	2
	Powell	2
	Toole	2
	Wheatland	2
39-47	Broadwater	1
	Carter	1
	Granite	1
	Musselshell	1
	Powder River	1
	Prairie	1
	Richland	1
	Stillwater	1
	Wibaux	1
48-56	Fallon	0
	Garfield	0
	Golden Valley	0
	Liberty	0
	Meagher	0
	Petroleum	0
	Phillips	0
	Sweet Grass	0
	Treasure	0

MEDIAN = 3.0

MEAN = 5.1

RESIDENT DEATHS DUE TO ACUTE ISCHEMIC HEART DISEASE: MONTANA 1969-1973

Region I

Counties	1969	1970	1971	1972	1973	Total	Avg.	Pop	Rate/ 100,000
Beaverhead	8	14	18	11	15	66	13.2	8,187	161
Deer Lodge	32	46	56	33	38	205	41.0	15,652	261
Flathead	92	67	80	67	99	405	81.0	39,460	205
Granite	1	4	6	4	4	19	3.8	2,737	138
Lake	35	24	26	28	28	141	28.2	14,445	195
Lincoln	21	24	25	30	30	130	26.0	18,063	143
Madison	10	3	7	4	5	29	5.8	5,014	115
Mineral	4	1	3	6	1	15	3.0	2,958	101
Missoula	68	92	100	76	74	410	82.0	58,263	140
Powell	18	21	16	17	15	87	17.4	6,660	261
Ravalli	36	43	42	29	41	191	38.2	14,409	265
Sanders	18	9	23	15	18	83	16.6	7,093	234
Silver Bow	112	90	111	125	125	563	112.6	41,981	268
TOTAL	455	438	513	445	493	2,344	468.8	234,922	199

ICDA 8th Revision - Rubric 410

Source: Bureau of Records and Statistics

RESIDENT DEATHS DUE TO ACUTE ISCHEMIC HEART DISEASE: MONTANA 1969-1973

Region II

Counties	1969	1970	1971	1972	1973	Total	Avg.	Pop.	Rate/ 100,000
Blaine	10	8	7	7	10	42	8.4	6,727	124
Broadwater	3	4	4	3	7	21	4.2	2,526	166
Cascade	96	103	98	85	92	474	94.8	81,804	115
Chouteau	12	10	23	8	7	60	12.0	6,473	186
Gallatin	36	58	45	37	44	220	44.0	32,505	135
Glacier	19	21	23	23	15	101	20.2	10,783	187
Hill	23	28	16	33	31	131	26.2	17,358	150
Jefferson	4	10	5	5	5	29	5.8	5,238	110
Lewis & Clark	46	39	44	54	29	212	42.4	33,281	127
Liberty	5	7	9	9	7	37	7.4	2,359	313
Meagher	4	4	2	8	4	22	4.2	2,122	197
Park	31	38	32	27	14	142	28.4	11,261	252
Pondera	15	13	14	9	14	65	13.0	6,611	196
Teton	14	10	16	9	16	65	13.0	6,116	212
Toole	14	14	12	21	13	74	14.8	5,839	253
TOTAL	332	367	350	338	308	1,695	[illegible] 339.0	231,003	146

ICDA 8th Revision - Rubric 410

Source: Bureau of Records and Statistics

RESIDENT DEATHS DUE TO ACUTE ISCHEMIC HEART DISEASE: MONTANA 1969-1973

Region III

Counties	1969	1970	1971	1972	1973	Total	Avg	Pop.	Rate/ 100,000
Big Horn	9	10	9	15	12	55	11.0	10,057	109
Carbon	17	19	30	18	16	100	20.0	7,080	282
Carter	3	2	2	2	2	11	2.2	1,956	112
Custer	15	28	26	19	29	117	23.4	12,174	192
Daniels	10	9	5	6	5	35	7.0	3,083	227
Dawson	17	18	14	21	9	79	15.8	11,269	140
Fallon	8	7	7	7	3	32	6.4	4,050	158
Fergus	19	13	17	24	14	87	17.4	12,611	137
Garfield	5	1	7	4	–	17	3.4	1,796	189
Golden Valley	–	2	–	2	–	4	0.8	931	85
Judith Basin	1	4	1	–	5	11	2.2	2,667	82
McCone	6	10	9	4	4	33	6.6	2,875	229
Musselshell	10	17	20	22	27	96	19.2	3,734	514
Petroleum	–	1	2	1	–	4	0.8	675	118
Phillips	9	12	13	8	11	53	10.6	5,386	196
Powder River	2	5	5	3	5	20	4.0	2,862	139
rairie	2	2	3	1	2	10	2.0	1,752	114
Richland	29	23	23	20	28	123	24.6	9,837	250
Roosevelt	35	24	25	25	20	129	25.8	10,365	248
Rosebud	7	11	15	8	9	50	10.0	6,032	165
Sheridan	16	16	15	21	16	84	17.2	5,779	297
Stillwater	19	9	13	11	14	66	12.4	4,632	267
Sweet Grass	10	6	8	10	11	45	9.0	2,980	302
Treasure	–	4	–	1	3	8	1.6	1,069	149
Valley	11	26	11	15	16	79	15.8	11,471	137
Wheatland	9	1	2	4	7	23	4.6	2,529	181
Wibaux	4	6	3	–	4	17	3.4	1,465	232
Yellowstone	104	95	90	104	99	492	98.4	87,367	112
TOTAL	377	381	375	376	371	1,880	377.0	228,484	165

ICDA 8th Revision - Rubric 410

Source: Bureau of Records and Statistics

APPENDIX C

Comprehensive Emergency Service C-1

Major Emergency Service C-1

General Emergency Service C-1

Basic Emergency Service C-1

First-Aid Station C-1

COMPREHENSIVE EMERGENCY SERVICE

SCOPE OF CAPABILITIES

The hospital shall be fully equipped, prepared, and staffed to provide prompt, complete and advanced medical care for all emergencies including those requiring the most complex and specialized services for adults, infants and children, including newborns. The hospital shall have a capacity adequate to accommodate the direct and referred patient loads of the region served and be capable of providing consultative support to professional personnel of other hospitals and health facilities in the same region. The community will have available to it licensed land and air ambulance service.

EMERGENCY DEPARTMENT

Overall responsibility for the operation of the emergency department shall be delegated to a medical staff physician with authority equivalent to that of other hospital committee heads.

Essential Staff

The emergency department staffing at all times shall include experienced physicians,[5] physically present or available within fifteen minutes, registered nurses, and other allied health personnel, each with a background of broad training in emergency care, including special training in emergency lifesaving procedures.

Essential Capabilities and Equipment

Emergency department capabilities and equipment adequate for the care of direct admissions or referrals of adults, infants and children, including newborns, from other hospitals shall be available and prepared to cope with all emergencies.

Equipment shall include: airway control and ventilation equipment, suction devices, cardiac monitor-defibrillator, pacemakers, apparatus to establish central venous pressure monitoring, intravenous fluids and administration devices, sterile surgical sets, gastric lavage equipment, and drugs and supplies.

Adequate psychiatric facilities shall be available within the community for the care of the acutely disturbed patients. Follow-up and a predetermined plan for transfer to the proper facility specializing in this type of care shall be established.

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[5] Experienced physicians, when applied to residents in training in that hospital, means those with more than two years of residency training; when applied to other physicians, experienced means one with more than two years experience following graduation.

HOSPITAL

Essential Staff

The hospital shall be staffed by experienced physicians physically available within fifteen minutes each day in all specialty categories necessary to the management of life-threatening conditions and by registered nurses and other allied health personnel. In addition, registered nurses and other allied health personnel shall be promptly available to respond to the emergency department, special care units or wards. Fully qualified specialists in all emergency specialty categories shall be on-call for consultation and physically available for service in the emergency department or other hospital areas within a short time.

Blood Bank

The hospital shall have a blood bank, as defined by the American Hospital Association, containing conventional types and have ready access to a supplemental supply. In addition, blood shall be immediately available to the emergency department.

Laboratory Services

Laboratory services within the city shall be capable of performing rapid analyses of blood gases, pH, serum electrolytes, and other procedures appropriate for emergency medical care including analysis of body fluids for drugs and alcohol. This service shall be staffed at all hours by qualified personnel who are promptly available. (Within fifteen minutes)

Radiological Services

In-hospital radiological service shall be near the emergency department and shall be capable of providing routine studies, utilizing fixed or mobile equipment as needed. This service shall be staffed at all hours by experienced physicians and qualified technicians who are available within fifteen minutes. Contrast studies, including angiography, shall be available on short notice in a radiological facility of the hospital.

Operating Room(s)

Operating room(s) shall be ready and promptly available to patients from the emergency department at all hours for emergency surgical procedures, and staffed by promptly available operating room personnel. Staffing by appropriate surgical specialists, anesthesiologist, and operating room personnel promptly available within a very few minutes is essential.

Postoperative Recovery Unit(s)

A postoperative recovery unit or equivalent[6] shall be available to the operating room suite and staffed by trained personnel. All essential personnel shall be in-house and available within fifteen minutes at all hours for postoperative emergency patients.

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[6] Equivalent being intensive care unit when postoperative recovery is not staffed.

Intensive Care Units

Intensive care units within the city, cardiac and other, for adults, children and infants, including newborns, with provisions for routine monitoring of the electrocardiogram and other physiological parameters is essential. The units shall be staffed at all hours by specially trained personnel experienced in the critical care management of cardiac and respiratory crises, multiple injuries, renal failure, extensive body burns, and other medical and surgical emergencies.

Communications Equipment

Communications equipment for in-hospital coordination and for direct two-way communication between the emergency department and ambulances, dispatchers, law-enforcement personnel, and other hospitals is required. This should be integrated with the state-wide Emergency Medical Service Communications Plan.

Helicopter Landing Facilities

Helicopter landing facilities shall be in close proximity to the emergency department.

MAJOR EMERGENCY SERVICE

SCOPE OF CAPABILITIES

The hospital shall be fully equipped, prepared, and staffed to provide prompt, complete and advanced medical care in all but one of the emergency medical specialties including those requiring the most complex and specialized services for adults, infants and children, including newborns. It shall have a capacity adequate to accommodate the direct and referred patient loads of the region served and be capable of providing consultative support to professional personnel of other hospitals and health facilities in the same region. The community will have available to it licensed land and air ambulances.

EMERGENCY DEPARTMENT

Overall responsibility for the operation of the emergency department shall be delegated to a medical staff physician with authority equivalent to that of other hospital department heads.

Essential Staff

The emergency department staffing at all times shall include experienced physicians,[7] physically present or available within fifteen minutes, registered nurses, and other allied health personnel, each with a background of broad training in emergency care, including special training in emergency lifesaving procedures.

Essential Capabilities and Equipment

Emergency department capabilities and equipment adequate for the care of direct admissions or referrals of adults, infants and children, including newborns, from other hospitals shall be available and prepared to cope with all emergencies.

Equipment shall include: airway control and ventilation equipment, suction devices, cardiac monitor-defibrillator, pacemakers, apparatus to establish central venous pressure monitoring, intravenous fluids and administration devices, sterile surgical sets, gastric lavage equipment, and drugs and supplies.

Adequate psychiatric facilities shall be available within the community for the care of the acutely disturbed patient. Follow-up and a predetermined plan for transfer to the proper facility specializing in this type of care shall be established.

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[7] Experienced physicians, when applied to residents in training in that hospital, means those with more than two years of residency training; when applied to other physicians, experienced means one with more than two years experience following graduation.

HOSPITAL

Essential Staff

The hospital shall be staffed by experienced physicians physically available within fifteen minutes each day in all but one of the major emergency medical specialty categories necessary to the management of life-threatening conditions and by registered nurses and other allied health personnel. In addition, registered nurses and other allied health personnel shall be promptly available to respond to the emergency department, special care units or wards. Fully-qualified specialists in all but one of the emergency medical specialty categories shall be on-call for consultation and physically available for service in the emergency department or other hospital areas within a short time.

Blood Bank

The hospital shall have a blood bank, as defined by the American Hospital Association, containing conventional types and have ready access to a supplemental supply. In addition, blood shall be immediately available to the emergency department.

Laboratory Services

Laboratory services within the city shall be capable of performing rapid analyses of blood gases, pH, serum electrolytes, and other procedures appropriate for emergency medical care including analysis of body fluids for drugs and alcohol. This service shall be staffed at all hours by qualified personnel who are promptly available. (Within fifteen minutes)

Radiological Services

In-hospital radiological service shall be near the emergency department and shall be capable of providing routine studies, utilizing fixed or mobile equipment as needed. This service shall be staffed at all hours be experienced physicians and qualified technicians who are available within fifteen minutes. Contrast studies, including angiography, shall be available on short notice in a radiological facility of the hospital.

Operating Room(s)

Operating room(s) shall be ready and promptly available to patients from the emergency department at all hours for emergency surgical procedures, and staffed by promptly available operating room personnel. Staffing by appropriate surgical specialists, anesthesiologist, and operating room personnel promptly available within a very few minutes is essential.

Postoperative Recovery Unit(s)

A postoperative recovery unit or equivalent[8] shall be available to the operating room suite and staffed by trained personnel. All essential personnel shall be in-house and available within fifteen minutes at all hours for postoperative emergency patients.

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[8] Equivalent being intensive care unit when postoperative recovery is not staffed.

Intensive Care Units

Intensive care units within the city, cardiac and other, for adults, children and infants, including newborns, with provisions for routine monitoring of the electrocardiogram and other physiological parameters is essential. The units shall be staffed at all hours by specially trained personnel experienced in the critical care management of cardiac and respiratory crises, multiple injuries, renal failure, extensive body burns, and other medical and surgical emergencies.

Communications Equipment

Communications equipment for in-hospital coordination and for direct two-way communication between the emergency department and ambulances, dispatchers, law-enforcement personnel, and other hospitals is required. This should be integrated with the state-wide Emergency Medical Service Communications Plan.

GENERAL EMERGENCY SERVICE

SCOPE OF CAPABILITIES

The hospital shall be equipped, prepared, and staffed in the emergency medical and surgical specialties[9] necessary to render resuscitative and life-support care of persons critically ill or injured of all ages. The availability of supplementary specialty services shall be prearranged with non-staff specialists. Transfer of patients for specialty care shall be by prior agreement with other hospitals. The community will have available to it licensed land and air ambulance service.

EMERGENCY DEPARTMENT

Overall responsibility for the operation of the emergency department shall be delegated to a medical staff physician with authority equivalent to that of other hospital department heads.

Essential Staff

The emergency department staffing at all times shall include experienced physicians[10] physically available within fifteen minutes, registered nurses, and other allied health personnel, each with a background of broad training in emergency care, including special training in emergency lifesaving procedures.

Essential Capabilities and Equipment

Emergency department capabilities and equipment adequate for the care of direct admissions or referrals of adults, infants and children, including newborns, from other hospitals shall be available and prepared to cope with all emergencies.

Equipment shall include: airway control and ventilation equipment, suction devices, cardiac monitor-defibrillator, pacemakers, apparatus to establish central venous pressure monitoring, intravenous fluids and administration devices, sterile surgical sets, gastric lavage equipment, and drugs and supplies.

Adequate psychiatric facilities shall be available within the community for the care of the acutely disturbed patients. Follow-up and a predetermined plan for transfer to the proper facility specializing in this type of care shall be established.

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[9] A Class C hospital would be lacking in more than one of the major emergency medical and surgical specialties.

[10] Experienced physicians, when applied to residents in training in that hospital, means those with more than two years of residency training; when applied to other physicians, experienced means one with more than two years experience following graduation.

HOSPITAL

Essential Staff

The hospital shall be staffed by experienced physicians physically available within fifteen minutes each day in all but one or more of the major emergency medical specialty categories necessary to the management of life-threatening conditions and by registered nurses and other allied health personnel. In addition, registered nurses and other allied health personnel shall be promptly available to respond to the emergency department, special care units or wards. Fully-qualified specialists in other specialty categories shall be on-call for consultation and physically available for service in the emergency department or for other hospital areas within a short time.

Blood Bank

The hospital shall have a blood bank, as defined by the American Hospital Association, containing conventional types and have ready access to a supplemental supply. In addition, blood shall be immediately available to the emergency department.

Laboratory Services

Laboratory services within the city shall be capable of performing rapid analyses of blood gases, pH, serum electrolytes, and other procedures appropriate for emergency medical care including analysis of body fluids for drugs and alcohol. This service shall be staffed at all hours by qualified personnel who are promptly available. (Within fifteen minutes)

Radiological Services

In-hospital radiological service shall be near the emergency department and shall be capable of providing routine studies, utilizing fixed or mobile equipment as needed. This service shall be staffed at all hours by experienced physicians and qualified technicians who are available within fifteen minutes. Contrast studies, including angiography, shall be available on short notice in a radiological facility of the hospital.

Operating Room(s)

The operating room(s) staffed by operating room personnel, including an anesthesiologist and/or a certified registered nurse anesthetist, shall be immediately available from in-house or on-call from outside the hospital at all hours for emergency surgical procedures.

Postoperative Recovery Unit(s)

A postoperative recovery unit or equivalent[11] shall be available to the operating room suite and staffed by trained personnel. All essential personnel shall be in-house and available within fifteen minutes at all hours for postoperative emergency patients.

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[11] Equivalent being intensive care unit when postoperative recovery is not staffed.

Intensive Care Units

Intensive care units within the city, cardiac and other, for adults, children and infants, including newborns, with provisions for routine monitoring of the electrocardiogram and other physiological parameters is essential. The units shall be staffed at all hours by specially trained personnel experienced in the critical care management of cardiac and respiratory crises, multiple injuries, renal failure, extensive body burns, and other medical and surgical emergencies.

Communications Equipment

Communications equipment for in-hospital coordination and for direct two-way communication between the emergency department and ambulance, dispatchers, law-enforcement personnel, and other hospitals is required. This should be integrated with the state-wide Emergency Medical Service Communications Plan.

BASIC EMERGENCY SERVICE

SCOPE OF CAPABILITIES

The hospital shall be equipped, prepared, and adequately staffed to render emergency resuscitative and life-support medical services for patients of all ages. Transfer when necessary shall be under prior agreement with other hospitals.

EMERGENCY DEPARTMENT

Essential Staff

A ~~designated physician~~ shall be on-call from in-house or outside the hospital 24 hours a day. The department shall be staffed by a registered nurse or a licensed practical nurse (under the immediate supervision of a registered nurse), who shall be on-call in-house 24 hours a day, and other allied health personnel. All must be trained in emergency lifesaving procedures.

Essential Capabilities and Equipment

The emergency department shall be equipped with surgical equipment, airway control and ventilation equipment, suction devices, gastric lavage equipment, intravenous fluids, and drugs and supplies. Electrocardiograph-defibrillator shall be readily available for use in the emergency department.

HOSPITAL

Essential Staff

A designated physician shall be on-call from in-house or outside the hospital 24 hours a day. Additional members of the medical staff shall be available at all times as needed. All must be trained in emergency lifesaving procedures.

Blood Bank

Blood shall be readily available from an established blood bank or from local donors on roster.

Laboratory Services

The laboratory service shall be capable of performing electrolyte determinations and staffed by a technician in-hospital or on-call 24 hours a day from outside the hospital. The technician must be available within fifteen minutes.

Radiological Services

The radiological service shall be staffed by a technician in-house or on-call 24 hours a day from outside the hospital.

Operating Room(s)

An operating room shall be continuously ready for surgery utilizing operating room and anesthesia personnel on-call 24 hours a day from outside the hospital.

Communications Equipment

Communications equipment shall be available and operating for in-hospital coordination. In addition, direct two-way radio service available between hospital, ambulances, and other appropriate emergency service personnel is required. This should be integrated with the state-wide Emergency Medical Service Communications Plan.

FIRST-AID STATION

All other Montana State Department of Health certified hospitals shall function only as triage and immediate resuscitative care centers. It is recommended that these hospitals provide the highest quality of emergency medical care within their own capabilities.

APPENDIX D

Letter & Component Listing to Montana Communities D-1

EMS Personnel & Training Deficiencies and Needs D-2

Equipment Deficiencies and Needs D-3

Attachment D-1

Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

John S Anderson M.D.
DIRECTOR

November, 1974

TO: Montana Communities

FROM: Robert L. Quam, Chief, Emergency Medical Services Bureau

SUBJECT: Emergency Medical Services Systems Act of 1973

Accidents and heart disease are some of the leading causes of death in the nation, as well as in Montana. Consequently, federal funds are being made available to assist with the development of emergency medical services systems under the Emergency Medical Services Systems Act of 1973. Because a statewide application will receive highest priority in the nationwide competition for the available funds and will provide the greatest opportunity for local communities to receive funds under this Act, the Emergency Medical Services Bureau is in the process of preparing such an application for submission to HEW by February 28, 1975. There is, of course, no definite assurance that funds will be awarded to us.

It is our desire to have local areas participate in the preparation of this grant application, as well as in its administration in the event the grant is awarded. Therefore, please be encouraged to carefully study the enclosed list of 15 elements which are outlined in the Act as essential to developing a comprehensive emergency medical services system. Based upon these 15 elements, please submit your identified needs to this office by January 15 so they may be incorporated into the statewide grant application. Also, please keep in mind that each local system must be compatible with adjacent systems to develop regional systems and, consequently, statewide network for emergency medical services. This is particularly true in the areas of transportation and radio communications.

Working together in a spirit of cooperation will enhance our abilities to make the greatest impact on the improvement of emergency medical services throughout Montana. We are looking forward to working with you in this most worthwhile effort.

Please feel free to write or call this office if you have questions or if we can be of assistance. Our phone number is 449-3895.

RLQ:bd

Attachment D-1

15 COMPONENTS OF AN EMS SYSTEM

1. Health manpower
   - A. How many physicians, R.N.s, L.P.N.s and EMTs do you have?
   - B. How many do you need?

2. Training
   - A. What training programs are you in need of; such as ANRC-First Aid, EMT training, training workshops for physicians, nurses?

3. Communications
   - A. What radio communication equipment is needed for hospital to ambulance communication, including inter ties with law enforcement?

4. Transportation
   - A. What vehicles are needed (air, ground or water) for movement of emergency patients?

5. Hospital facilities
   - A. What, if any, are the equipment needs of the hospital emergency department?

6. Access to specialized critical care units
   - A. If there are no such units in the area, what is needed, including appropriate transportation, to provide access to such units in neighboring areas?

7. Public safety agencies
   - A. What is required to ensure the use of personnel and equipment of public safety agencies, such as fire, police and sheriff departments, in times of disaster and medical emergencies.

8. Consumer participation
   - A. How will consumers (those people who have no training or financial interest in health care) be given the opportunity to participate in making policy for the system.

9. Care without ability to pay
   - A. How will persons in need of care be provided emergency care without prior inquiry to their ability to pay?

10. Transfer of patients
    - A. What provisions will be made for transfer of persons for follow-up care and rehabilitation?

11. Standard patient record keeping system
    - A. What is needed to assure a uniform patient record from entry into the emergency medical services system to his discharge from it?

12. Public education
    - A. What is needed to ensure a good public information program so people know what to do in a medical emergency?

13. Review and evaluation
    - A. How will the system be periodically reviewed and evaluated?

14. Disaster planning
    - A. What is needed to assure the system will be capable of responding to mass casualties, natural disasters or national emergencies?

15. Agreements with neighboring areas
    - A. What arrangements will be made to provide emergency medical services on a reciprocal basis?

RLO:bd
11/18/74

Attachment D-2

CHAPTER IV

(1.4) E.M.S. Personnel and Training Deficiencies and Needs.

Ambulance Attendents. (Detailed breakdown by regions can be found in exhibits)

Region I

Total Number of personnel	488
Total Number of E.M.T.-A's	188
Total to be trained	300

Region II

Total Number of personnel	334
Total Number of E.M.T.-A's	142
Total to be trained	192

Region III

Total Number of Personnel	446
Total Number of E.M.T.-A's	177
Total to be trained	269

Dispatchers.- Total number of dispatchers having advanced First Aid and Emergency Care is not available at this time, but there exists a need to assess the current training level and training needs of dispatchers and to develop a on-going mechanism to provide this training.

First Responders.- Such as fire and law enforcement personnel.

> There is currently no minimum level of training required for these important first responders. There is a need to work cooperatively with agencies to set minimum levels of training based upon a needs assessment and to develop a mechanism to provide the appropriate training.

Advanced E.M.T. - There is a need to develop in conjunction with the Board of Medical Examiners, training standards and corresponding rules and regulations for Advanced E.M.T. training programs. There exists a need for a mechanism to provide Advanced E.M.T. training to all areas in need of it, and to tailor the advanced training programs to the needs and resources of local communities.

First Aid Training for General Public. - In order to assure the public is knowledgeable of appropriate first aid procedures in a medical emergency or accident, there is a need to institute comprehensive first aid training programs in every community. To do this would require approximately the following numbers of additional first aid instructors to be trained in each region:

Basic First Aid instructors	150
Multi-Media First Aid instructors	50
Standard First Aid and Personal Safety instructors	50
Advanced First Aid and Emergency Care instructors	50
CPR instructors	100

In order to accomplish this on a continuing basis, there is a need for approximately 5 additional Red Cross instructor-trainers for each region.

Physicians, RNs and LPNs. - There is a need to assess the efforts at providing training in emergency care procedures for these professional groups and to devise training programs and delivery mechanisms to provide necessary training.

Radio Communications Training. - Because physicians, nurses and EMTs do not receive training in the use of radio communications equipment in their normal training programs, we must make the assumption there is a deficiency in this training and a need to provide to all of the above-mentioned personnel.

FOOTNOTES TO FOUR-YEAR TRAINING GOALS

1. The first number indicates the number of existing ambulance personnel (taken from current personnel rosters) needing training to the EMT-A level. The number in parentheses is the total number of personnel needing training to the EMT-A level based upon 15 EMT-A's per ambulance service. Highway Traffic Safety Standard II indicates that 8 persons are needed to properly staff an ambulance service. However, volunteer services, where all persons have other full-time positions, need this additional number of EMT-A's to provide 24-hour/day, 7 day-per-week coverage.

2. EMT-A REFRESHER - Based upon one retraining program for existing EMT-A personnel and necessary EMT-A refresher training for untrained personnel over a four-year period based upon a two-year certification.

3. Based upon twenty persons trained per 1,000 population to standard first aid level (either Standard First Aid and Personal Safety or Standard Multimedia First Aid).

4. Based upon ten persons trained per 1,000 population to Advanced First Aid and Emergency Care level.

5. Based upon two Standard First Aid instructors per 1,000 population.

6. Based upon one Advanced First Aid and Emergency Care instructor per 1,000 population.

7. Based upon the following criteria:

   1 CPR instructor/trainer for each county with a population under 10,000;
   2 for each county with a population between 10,000 and 20,000;
   3 for each county with a population between 20,000 and 40,000;
   5 for each county between 40,000 and 60,000; and
   10 for each county with a population of 60,000 or over.

FOUR-YEAR TRAINING GOALS

REGION I

COUNTY	EMT-A[1]	EMT REFRESHER[2]	STANDARD FIRST AID[3]	INSTRUCTOR TRAINERS CPR	ADVANCED FIRST AID[4]	STANDARD FIRST AID INSTRUCTORS[5]	ADVANCED FIRST AID INSTRUCTORS[6]
Beaverhead	30 (39)	36 (45)	160	1 (1)	80	16	8
Deer Lodge	36 (39)	36 (39)	316	0 (2)	158	32	16
Flathead	42 (45)	71 (74)	812	2 (5)	406	81	41
Granite	13 (14)	32 (33)	52	0 (1)	26	5	3
Lake	28 (32)	46 (50)	312	0 (2)	156	31	16
Lincoln	15 (20)	64 (69)	354	1 (2)	177	35	18
Madison	34 (37)	57 (60)	112	0 (1)	56	11	6
Mineral	12 (15)	12 (15)	66	0 (1)	33	7	3
Missoula	22 (23)	34 (35)	1024	5 (10)	612	102	61
Powell	7 (15)	7 (15)	136	0 (2)	68	14	7
Sanders	19 (57)	22 (60)	148	0 (1)	74	15	7
Silver Bow	9 (21)	17 (30)	844	3 (5)	422	84	42
Ravalli	33 (39)	54 (60)	338	0 (2)	169	34	17
TOTAL	300(396)	488(585)	4674	12 (35 ~~26~~)	2437	467	245

FOUR-YEAR TRAINING GOALS

REGION 2

COUNTY	EMT-A[1]	EMT REFRESHER[2]	STANDARD FIRST AID[3]	Instructor trainees CPR	ADVANCED FIRST AID[4]	STANDARD FIRST AID INSTRUCTORS[5]	ADVANCED FIRST AID INSTRUCTORS[6]
Blaine	2 (13)	4 (15)	136	0 (1)	68	14	7
Broadwater	7 (15)	7 (15)	54	0 (1)	27	5	3
Cascade	9 (17)	22 (30)	1674	26 (10)	837	167	84
Chouteau	22 (30)	22 (30)	118	0 (1)	59	12	6
Gallatin	46 (46)	65 (65)	716	1 (3)	358	72	36
Glacier	5 (11)	27 (33)	228	0 (2)	114	23	11
Hill	12 (21)	22 (31)	352	0 (2)	176	35	18
Jefferson	9 (14)	28 (33)	134	0 (1)	67	13	7
Lewis & Clark	32 (32)	42 (42)	710	2 (3)	355	71	36
Liberty	5 (13)	7 (15)	50	0 (1)	25	5	3
Meagher	9 (15)	9 (15)	44	0 (1)	22	4	2
Park	11 (24)	17 (30)	236	0 (2)	118	24	12
Pondera	2 (15)	15 (30)	144	0 (1)	72	14	7
Teton	0 (10)	20 (30)	132	0 (1)	66	13	7
Toole	28 (28)	34 (34)	110	0 (1)	55	11	6
TOTAL	(204) 199(~~198~~)	(448) 341(~~307~~)	4838	29 (31)	2419	483	245

Attachment D-2

Exhibit________

FOUR-YEAR TRAINING GOALS

REGION 3

COUNTY	EMT-A[1]	EMT REFRESHER[2]	STANDARD FIRST AID[3]	Intructor training CPR	ADVANCED FIRST AID[4]	STANDARD FIRST AID INSTRUCTORS[5]	ADVANCED FIRST AID INSTRUCTORS[6]
Big Horn	14 (17)	27 (30)	222	1 (2)	111	22	11
Carbon	21 (32)	34 (45)	156	0 (1)	78	16	8
Fergus	37 (50)	37 (37)	254	0 (2)	127	25	13
Carter	6 (15)	6 (15)	36	0 (1)	18	4	2
Custer	8 (18	16 (16)	226	1 (2)	113	23	11
Daniels	5 (15)	5 (15)	62	0 (1)	31	6	3
Dawson	10 (16)	27 (33)	218	0 (2)	109	22	11
Fallon	2 (15)	4 (15)	76	0 (1)	38	8	4
Garfield	10 (15)	10 (15)	36	0 (1)	18	4	2
Golden Valley	– —	– —	20	0 (1)	10	2	1
Judith Basin	16 (29)	16 (29)	52	0 (1)	26	5	3
McCone	9 (15)	9 (15)	56	0 (1)	28	6	3
Musselshell	0 —	42 (42)	82	0 (1)	41	8	4
Petroleum	2 (12)	3 (15)	12	0 (1)	6	1	1
Phillips	11 (15)	11 (15)	104	0 (1)	52	10	5
Powder River	2 (10)	7 (15)	42	0 (1)	21	4	2
Prairie	7 (15)	7 (15)	40	0 (1)	20	4	2
Richland	4 (7)	12 (15)	194	0 (1)	97	19	10
Roosevelt	16 (43)	18 (45)	200	1 (2)	100	20	10
Rosebud	5 (21)	14 (30)	132	0 (1)	66	13	7
Sheridan	8 (15)	8 (15)	110	0 (1)	55	11	6
Stillwater	29 (40)	32 (45)	96	0 (1)	48	10	5
Sweet Grass	1 (12)	4 (15)	60	0 (1)	30	6	3
Treasure	2 (9)	8 (15)	22	0 (1)	11	2	1
Valley	0 (11)	4 (15)	266	0 (2)	133	27	13
Wheatland	2 ([illegible])	26 (26	50	0 (1)	25	5	3
Wibaux	10 (15)	10 (15)	28	0 (1)	14	3	1
Yellowstone	32 (49)	53 (70)	1846	5 (10)	923	185	92
TOTAL	[illegible] 269(~~443~~)	(693) 450(~~552~~)	4698	8 (43)	2349	471	237

Attachment D-2

Chapter IV (1.3)

Training Equipment Needs

Toole County

CPR Mannekin
Hare Traction Splint
Overhead Projector
Dressings and bandages
35 mm projector
16 mm projector
Extrication equipment
Training films
Film overlays
Portable suction
Scoop stretcher

Granite County

Slides
Illustrated injuries
1 Resusci Ann
10 films
Multi media films
50 AAOS texts
EMT course documents
50 "Wonderful Human Machines"
ANRC textbooks
Travel and per diem to train ANRC instructors
Public education

Granite County

Other supplies of education
Instructors salary

Glacier County

2 CPR manis with light boxes and performance analyzer
2 Resusci Annes
1 Rico portable suction
Mileage and per diem for in-service training in Spokane - 3 days for 12 EMTs

February 14, 1975
DED/jmn

Appendix D-3

EQUIPMENT DEFICIENCIES AND NEEDS

Ambulances or Other Emergency Vehicles. (Completed information follows this page)

Ambulance Equipment to Meet Required Minimum Standards. - None.

- Extrication equipment - (As outlined in the standards in Chapter III)
  - Detailed breakdown by regions can be found in exhibits.

Region I

Twenty-four complete extrication kits needed.

Region II

Twenty-one complete extrication kits needed.

Region III

Thirty complete extrication kits needed.

Communication Equipment. -

Hospital Equipment. - Will be identified through process of categorizing hospitals.

Criteria for Replacing Ambulances that do not currently meet the Montana State Ambulance Design Specifications.

- Level of departure from state design criteria. 0 - 10
- Age of vehicle

0 - 3 years = 1 pts
4 - 7 " = 3 pts
8 -11 " = 5 pts
11+ " =10 pts

- Number of runs

0 - 30 runs = 2 pts
31 - 60 " = 5 pts
61 -100 " = 7 pts
100+ " =10 pts

- Distance (miles) from Nearest Ambulance Service

  0 - 10 miles = 2 pts
  11 - 20 " = 5 pts
  21 - 30 " = 7 pts
  31+ " =10 pts

- Ambulance Services not having a Licensed Hospital are Awarded Four Points.

Ambulances not currently meeting Montana State Ambulance Design Criteria and Number of Points Awarded Based on Above Criteria.

Region I

Silver Bow County	
A-1	18
Big Sky	18
Powell County	
Deer Lodge	24
Beaverhead County	
Dillon	27
Lima	31
Wisdom	20
Madison County	
Ennis	19
Melrose	33
Lincoln County	
Eureka	31
Lincoln	22
Troy	21
Ravalli County	
Hamilton	21
Darby	31
Stevensville	36
Victor	30
Flathead County	
Kalispell	21

Sanders County	
Noxon	29
Plains	19
Deer Lodge County	
Opportunity	28
Granite County	
Philipsburg	19
Lake County	
Polson	22
Missoula County	
Seeley Lake	36
Madison County	
Sheridan	33
Mineral County	
Superior	21

Appendix D-3

Region II

Cascade County	
Belt	30
Chouteau County	
Big Sandy	23
Fort Benton	24
Jefferson County	
Boulder	32
Gallatin County	
Big Sky	23
Bozeman	21
*West Yellowstone	38
Liberty County	
Chester	16
Blaine County	
Chinook	26
Lewis & Clark County	
Linden	24
Lincoln	29
Hill County	
Rudyard	30
Broadwater County	
Townsend	23
Pondera County	
Valier	21
Meagher County	
White Sulphur Springs	23

Region III

Fallon County	
Baker	21
Sweet Grass County	
Big Timber	21
Yellowstone County	
West End	10
Laurel	25
Worden	34
Carbon County	
Bridger	25
Joliet	28
Powder River County	
Broadus	32
McCone County	
Circle	25
Rosebud County	
Colstrip	25
Forsyth	25
Roosevelt County	
Culbertson	18
Poplar	21
Wolf Point	25
Fergus County	
Denton	31
Petroleum County	
Winnett	36
Valley County	
Glasgow	24
Judith Basin County	
Hobson	17
Park County	
Franzen Davis - Liv.	18
Lowry	22
Phillips County	
Malta	24
Custer County	
Miles City	28
Sheridan County	
Plentywood	27
Dawson County	
Richey	21
Daniels County	
Scobey	36
Judith Basin County	
Stanford	29
Prairie County	
Terry	23
Wibaux County	
Wibaux	22

Appendix D-3

NEEDS - - YEAR 1

Transportation

REGION 1

	AMBULANCES Year 1	AMBULANCES Year 2	EXTRICATION KITS	OTHER EQUIPMENT BY DOLLAR VALUE
Beaverhead County				
Dillon	0	1	1	0
Lima	1	-	1	0
Wisdom	0	-	1	
Wise River	0	-	0	$ 746.75[1]
Jackson	0	-	0	746.75[1]
Deer Lodge County				
Anaconda	0	-	1	0
Opportunity	0	1	1	0
Flathead County				
Columbia Falls	0	-	0	0
Kalispell	0	-	0	0
Whitefish	0	-	0	0
Granite County				
Philipsburg	0	-	1	0
Drummond	0	-	0	0
Lower Rock Creek	0	-	0	746.75[1]
Georgetown Lake	0	-	0	746.75[1]
Lake County				
Polson	0	-	0	0
Ronan	0	-	1	0
St. Ignatius	0	-	1	0
Lincoln County				
Eureka	1	-	0	0
Libby	0	-	0	0
Troy	0	-	1	0
Madison County				
Ennis	0	-	0	0
Sheridan	0	-	1	0
Mineral County				
Superior	0	-	1	0
Missoula County				
Missoula	0	-	1	0
Seeley Lake	1	-	1	0

NEEDS- Year 1 *Transportation* Region 1 (cont'd)

	AMBULANCES Year 1	 Year 2	EXTRICATION KITS	OTHER EQUIPMENT BY DOLLAR VALUE
Powell County				
Deer Lodge	0	-	1	0
Sanders County				
Hot Springs	0	-	1	0
Plains	0	-	1	0
Thompson Falls	0	-	1	0
Noxon	0	1	1	0
Silver Bow County				
Butte	0	-	2	0
Melrose	1	-	1	0
Ravalli County				
Darby	1	-	1	0
Hamilton	0	-	1	0
Stevensville	1	-	1	0
Victor	1	-	0	0
REGION 1 TOTALS	7	3	24	$2,987.00

Appendix D-3

NEEDS - YEAR 1

Transportation

REGION 2

	AMBULANCES Year 1	AMBULANCES Year 2	EXTRICATION KITS	OTHER EQUIPMENT BY DOLLAR VALUE
Blaine County				
Chinook	0	1	0	0
Broadwater County				
Townsend	0	-	1	0
Cascade County				
Belt	1	-	1	0
Great Falls	0	-	1	0
Chouteau County				
Big Sandy	0	-	1	0
Ft. Benton	0	-	1	0
Gallatin County				
Bozeman	0	-	1	0
West Yellowstone	1	-	1	0
Big Sky	0	-	1	0
Hill County				
Havre	0	-	0	0
Rudyard	0	-	0	0
Glacier County				
Browning	0	-	0	$ 1,200.00[2]
Cut Bank	0	-	1	
Jefferson County				
Boulder	1	-	0	
Whitehall	0	-	1	
Basin				620.25[3]
Clancy				620.25[3]
Cardwell				620.25[3]
Elk Park				620.25[3]
Jefferson City				620.25[3]
Elkhorn				620.25[3]
Lewis & Clark County				
Helena	0	0	0	0
Lincoln	0	1	1	0

NEEDS - Year 1 Transportation

	AMBULANCES		EXTRICATION KITS	OTHER EQUIPMENT BY DOLLAR VALUE
	Year 1	Year 2		
Liberty County				
Chester	0	-	0	0
Meagher County				
White Sulphur Springs	0	-	1	0
Park County				
Livingston	0	-	2	0
Pondera County				
Valier	0	-	1	0
Conrad	0	-	0	0
Teton County				
Choteau	0	-	0	0
Fairfield	0	-	0	0
Toole County				
Shelby	0	-	0	0
Sunburst	1	-	1	0
REGION 2 TOTALS	4	2	16	$ 4,921.50

NEEDS - - YEAR 1

Transportation

REGION 3

	AMBULANCES		EXTRICATION KITS	OTHER EQUIPMENT BY DOLLAR VALUE
	Year 1	Year 2		
Big Horn County				
Hardin	0	-	0	0
Lodge Grass	1	-	1	0
Carbon County				
Red Lodge	1			0
Bridger	0	1	1	0
Joliet	0	1	1	0
Carter County				
Ekalaka	0	-	1	0
Custer County				
Miles City	0	1	0	0
Daniels County				
Scobey	1	-	1	0
Dawson County				
Glendive	0	-	0	0
Richey	0	-	1	0
Fallon County				
Baker	0	-	1	0
Fergus County				
Lewistown	0	-	0	0
Denton	1	-	1	0
Garfield County				
Jordan	0	-	1	0
Golden Valley County				
	0	-	0	0
Judith Basin County				
Hobson	0	-	1	0
Stanford	0	1	1	0

N E E D S - Year 1 Transportation Region 3 (cont'd)

	AMBULANCES		EXTRICATION KITS	OTHER EQUIPMENT BY DOLLAR VALUE
	Year 1	Year 2		
McCone County				
Circle	0	1	1	0
Musselshell County				
Roundup	0	-	0	0
Petroleum County				
Winnett	1	-	1	0
Phillips County				
	0	-	1	0
Powder River County				
Broadus	1	-	1	0
Prairie County				
Terry	0	-	1	0
Richland County				
Sidney	0	-	1	0
Roosevelt County				
Wolf Point	0	1	1	0
Poplar	0	-	1	0
Culbertson	0	-	1	0
Rosebud County				
Forsyth	1	1	1	0
Colstrip	0	1	1	0
Sheridan County				
Plentywood	0	1	1	0
Stillwater County				
Columbus	0	-	1	0
Absarokee	0	-	1	0
Sweet Grass County				
Big Timber	0	-	0	0

NEEDS - Year 1 Transportation Region 3 (cont'd)

	AMBULANCES Year 1	AMBULANCES Year 2	EXTRICATION KITS	OTHER EQUIPMENT BY DOLLAR VALUE
Treasure County				
Hysham	0	-	1	0
Valley County				
Glasgow	0	-	1	0
Wheatland County				
Harlowton	0	-	0	0
Wibaux County				
Wibaux	0	-	1	0
Yellowstone County				
Billings	0	-	0	0
Laurel	0	1	1	0
Worden	1	-	1	0
REGION 3 TOTALS	8	10	30	0
Northern Cheyenne	1	-	1	0
TOTAL	9	10	31	0

Appendix D-3

NEEDS - YEAR 1

Transportation

footnotes:

1	1	EMT Jump Kit	$	300.00
	1	O_2 Setup		150.00
	3	Blankets @ 7.00		21.00
	1	Long Backboard		65.00
	1	Short Backboard		37.00
	1	Hare Traction		126.50
	1	Bag Mask		47.25
			$	746.75
2	4	EMT Jump Kits @ 300.00	$	1,200.00
3	1	EMS Jump Kit		300.00
	1	O_2 Setup		150.00
	3	Blankets @ 7.00		21.00
	1	Long Backboard		65.00
	1	Short Backboard		37.00
	1	Bag Mask		47.25
			$	620.25

INDIVIDUAL AREAS REQUESTING EQUIPMENT

REGION 1

COUNTY	Local AMBULANCES REQUESTED	STATE AMBULANCE PRIORITY	YEAR *	LOCAL EXTRICATION EQUIPMENT REQUESTED	STATE IDENTIFIED EXTRICATION NEEDS	OTHER LOCAL NEEDS IDENTIFIED
Beaverhead	0	3	1,2,3	0	3	YES
Deer Lodge	0	1	2	0	2	
Flathead	0	1	4	0	1	
Granite	1	1	4	3	1	YES
Lake	1	1	3	0	2	
Lincoln	2	3	1,3,4	1	1	
Madison	0	2	1,4	0	2	
Mineral	0	1	4	0	1	
Missoula	0	1	1	0	2	
Powell	0	1	3	0	1	
Sanders	0	2	2,4	0	4	
Silver Bow	0	2	4,4	0	2	
Ravalli	0	4	1,1,1,4	0	3	

* YEAR OF GRANT IN WHICH VEHICLE IS TO BE REPLACED

INDIVIDUAL AREAS REQUESTING EQUIPMENT

REGION 2

COUNTY	LOCAL AMBULANCES REQUESTED	STATE AMBULANCE PRIORITY	YEAR *	LOCAL EXTRICATION EQUIPMENT REQUESTED	STATE IDENTIFIED EXTRICATION NEEDS	OTHER LOCAL NEEDS IDENTIFIED
Blaine	0	1	2	0	1	
Broadwater	0	1	3	0	1	
Cascade	1	1	1	0	2	YES
Chouteau	0	2	3,3	0	2	
Gallatin	0	3	1,3,4	0	3	
Glacier	0	0		0	1	
Hill	0	1	1	0	1	
Jefferson	1	1	1	1	1	YES
Lewis & Clark	0	2	2,3	0	1	YES
Liberty	0	1	4	0	1	
Meagher	1	1	3	0	1	
Park	0	2	3,4	1	2	YES
Pondera	0	1	4	0	1	
Teton	0	0		0	2	
Toole	1	1	1	1	1	YES
(Rocky Boy)	1					

* YEAR OF GRANT IN WHICH VEHICLE IS TO BE REPLACED

Appendix D-3

INDIVIDUAL AREAS REQUESTING EQUIPMENT
REGION 3

COUNTY	LOCAL AMBULANCES REQUESTED	STATE AMBULANCE PRIORITY	YEAR *	LOCAL EXTRICATION EQUIPMENT REQUESTED	STATE IDENTIFIED EXTRICATION NEEDS	OTHER LOCAL NEEDS IDENTIFIED
Big Horn	1	1	1	0	1	
Carbon	2	3	1,1.2	0	2	
Carter	0	0		0	1	
Custer	1	1	2	0		
Daniels	1	1	1	0	1	
Dawson	0	1	4	0	1	
Fallon	1	1	4	0	1	
Fergus	0	1	1	0	1	
Garfield	0	0		0	1	
Golden Valley	0	0		0	0	
Judith Basin	1	2	2,4	0	2	
McCone	0	1	2	0	1	
Musselshell	1	0		0	0	
Petroleum	0	1	1	0	1	
Phillips	0	1	3	0	1	
Powder River	2	1	1	0	1	
Prairie	0	1	3	0	1	
Richland	0	0		0	1	
Roosevelt	2	3	2,3,4	0	3	
Rosebud	1	2	2,2	0	2	
Sheridan	1	1	2	0	1	
Stillwater	1	0		0	2	
Sweet Grass	1	1	4	0	0	
Treasure	0	0		0	1	
Valley	0	1	3	0	1	
Wheatland	0	0		0	0	
Wibaux	0	1	3	0	1	
Yellowstone	2	3	1,2,4	0	2	

* YEAR OF GRANT IN WHICH VEHICLE IS TO BE REPLACED

INDIVIDUAL AREAS REQUESTING EQUIPMENT

1. Eureka - 1 ambulance
2. Stanford - 1 Ambulance
3. Jefferson County - 1 ambulance, 10 sets of emergency medical equipment $2,500, 7 equipment caches $3,500
4. White Sulphur Springs - 1 ambulance
5. Polson - 1 ambulance
6. Rocky Boy - 1 ambulance
7. Broadus - 2 ambulances
8. Helena - Heavy duty rescue equipment
9. Scobey - 1 ambulance
10. Park County - Four-wheel drive rescue vehicle, 1 Jaws of Life, First Aid equipment for patrol cars
11. Sweet Grass County - 1 ambulance
12. Plentywood - 1 ambulance
13. Toole County - 1 emergency transport stretcher, 4 x 4 suberban ambulance, 1 extrication kit, 1 Hare traction splint, 1 ambulance chair stretcher
14. Beaverhead County - Large amount of first aid supplies requested for ambulances, Jackson and Wise River
15. Lincoln County - Ambulances (replacement), specialized types of transportation and evacuation equipment
16. Fallon County - 1 ambulance
17. Custer County - 1 ambulance
18. Rosebud County - 1 ambulance
19. Granite County - 1 ambulance & basic ambulance equipment $14,500, Extrication kits $2,000, ambulance supplies $500, First Aid supplies for Lower Rock Creek $250, First Aid supplies for Georgetown Lake $250
20. Yellowstone County - 1 ambulance (Laurel), 1 ambulance (Worden)
21. Musselshell County - 1 ambulance (Roundup)
22. Stillwater County - 1 ambulance (Columbus)

23. Carbon County - 1 ambulance (Red Lodge), 1 ambulance (Bridger)
24. Big Horn County - 1 ambulance (Hardin)
25. Cascade County - 1 fully-equipped ambulance $53,205, 1 public safety rescue vehicle $97,590
26. Roosevelt County - 2 ambulances (Wolf Point) $45,520

APPENDIX E

Highway Traffic Safety Agreement E-1

PLAN OF COOPERATION

BETWEEN

THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

AND

THE HIGHWAY TRAFFIC SAFETY DIVISION,
DEPARTMENT OF INTERGOVERNMENTAL RELATIONS

WHEREAS, Section 69-7002, R.C.M. 1947, provides that the Department of Health and Environmental Sciences (hereinafter called the "Department") and the Highway Traffic Safety Division of the Department of Intergovernmental Relations (hereinafter called the "Division") and other interested departments or divisions, shall develop in writing a mutually agreeable plan of cooperation relating to emergency medical services;

AND, WHEREAS, the purpose of an agreeable plan of cooperation between the Department and the Division is to eliminate the duplication of governmental effort and to apply governmental resources on a reasonably priority basis relating to emergency medical services;

NOW, THEREFORE, the Department and the Division mutually agree upon the following plan of cooperation:

1. The requirements of the Highway Safety Program Manual, Standard 11, which is entitled "Emergency Medical Services" shall be incorporated into the Montana State Plan for Emergency Medical Services.
2. The annual work program developed by the Division pursuant to Standard 11 shall be prepared in cooperation with the Emergency Medical Services Bureau of the Department.
3. Prior to the purchase of equipment for or the establishment of programs in emergency medical services by the Division, the Emergency Medical Services Bureau of the

Department shall evaluate the purchase of the equipment or the programs as it relates to the Montana State Plan for Emergency Medical Services.

4. Funding for equipment for emergency medical services by the Division shall be consistent with the recommendations of the Emergency Medical Services Bureau of the Department.

DONE AND DATED at Helena, Montana this 24th day of December, 1974.

DEPARTMENT OF HEALTH & ENVIRONMENTAL SCIENCES

By ______________________
Director

HIGHWAY TRAFFIC SAFETY DIVISION,
DEPARTMENT OF INTERGOVERNMENTAL RELATIONS

By ______________________ 12-24-74
Administrator

APPENDIX F

Appendix F

II. Operating Expenses

	Organization & Management		Evaluation	Planning (local & regional EMS Councils)	Consumer Info	Total
	FY 1976 Existing State Budget	FY 1976 Proposed Expanded Staff				
Supplies & Materials	$ 2,750	$ 2,900	$ 1,800	$ 7,280	$ 320	$ 15,050
Telephone & Postage	2,000	4,000	500	1,610		8,110
Travel	12,000	18,500	6,000	10,080		46,580
Rent	3,500	6,400	2,850		575	13,325
Utilities	310	500	-0-			810
Repairs & Maintenance	-0-	450	-0-			450
Other (Conferences & workshops)	500	4,000	800			5,300
Staff Training		1,300				1,300
TOTAL	$ 21,060	$ 38,050	$ 11,950	$ 18,970	$ 895	$ 90,925
	$ 59,110					

Appendix F

Budget Justification

Operating Expenses (Existing Staff)

Supplies & Materials Include Printing & Copying	$ 2,750
Telephone & Postage	2,000
Travel	12,000
Rent	3,500
Utilities	310
Other	500
	$ 21,060

Appendix F

Budget Justification

Operating Expenses (Proposed Staff)

	State	Region 1	Region 2	Region 3	Total
Supplies & Materials (includes printing & copying)	$ 2,000	$ 300	$ 300	$ 300	2,900
Telephone & Postage	1,000	1,000	1,000	1,000	4,000
Travel	8,000	3,500	3,500	3,500	18,500
Rent	2,200	1,400	1,400	1,400	6,400
Utilities	200	100	100	100	500
Repairs & Maintenance	150	100	100	100	450
Other (Staff Training)	1,000	100	100	100	1,300
(Conferences & Workshops)	1,000	1,000	1,000	1,000	4,000
TOTAL	$ 15,550	$ 7,500	$ 7,500	$ 7,500	$38,050
				Existing Staff	21,060
					$59,110

Budget Justification

Operating Expense (Evaluation)

	Contractor	Consultants	Computer Time	Total
Supplies & Materials	$ 1,800	$ -0-	$ -0-	$ 1,800
Telephone & Postage	500	-0-	-0-	500
Travel	3,000	3,000	-0-	6,000
Rent	850	-0-	2,000	2,850
Other (Conferences & Workshops)	800	-0-	-0-	800
	$ 6,950	$ 3,000	$ 2,000	$ 11,950

Budget Justification

Operating Expenses (Consumer Information)

	Production Costs	30 Billboards	Total
Supplies & Materials	$ 320	$	$ 320
Rent		575	575
Total	$ 320	$ 575	$ 895

Budget Justification

Operating Expenses (Planning)

	Annual Cost per Council	Number of Councils	Totals
Supplies & Materials (Copying & Printing, Misc. Supplies)	$ 260	28	$ 7,280
Telephone & Postage	57	28	1,610
Travel	360	28	10,080
Total	$ 677	84	$ 18,970

BUDGET JUSTIFICATION

III. EQUIPMENT COSTS

Transportation Equipment

	Region 1	Region 2	Region 3	Totals
Ambulances (@ $20,000)	7 = $140,000	4 = $80,000	9 = $180,000	$400,000
Equipment:				
Extrication (@ $700)	24 = 16,800	16 = 11,200	31 = 21,700	49,700
Other	3,000	4,900	- -	7,900
TOTALS	$159,800	96,100	201,700	457,600

BUDGET JUSTIFICATION

III. EQUIPMENT COSTS

	Region 1	Region 2	Region 3	Totals
Training	$ 2,733	2,733	2,733	8,200
Communications	205,000	153,800	295,900	674,700
Transportation	159,800	96,100	201,700	457,600
Ambulances	140,000	80,000	180,000	400,000
Ambulance Equipment	19,800	16,100	21,700	57,600
Organization & Management (Office Equipment)	3,100	3,100	3,100	9,300
TOTALS	$ 370,633	255,733	503,433	1,129.300

BUDGET JUSTIFICATION

III. EQUIPMENT COSTS

Organization & Management

Regional Offices

	Region 1	Region 2	Region 3	Totals
Office Equipment for Regional Offices:				
2 Desks	$ 400	400	400	1,200
3 Chairs	225	225	225	225
1 Shelving	85	85	85	675
1 Typewriter	700	700	700	2,100
1 File	200	200	200	600
1 Calculator	450	450	450	1,350
Subtotals	$ 2,060 1,040 *	2,060 1,040 *	2,060 1,040 *	6,180 3,120 *
TOTALS	$ 3,100	3,100	3,100	9,300

State Offices

2 Executive Desks	$ 350
1 Secretarial Desk	225
Chairs	375
Typewriter	700
Calculator	450
2 Dictaphone transcriber	480
Two-Drawer File	70
2 Four-Drawer Files	400
Table	70
TOTAL	$ 3,120 *

BUDGET JUSTIFICATION

III. EQUIPMENT COSTS

Training Equipment

(Existing EMT Training Program)

	Region 1	Region 2	Region 3	Totals
2 Resusci Annes	$ 600	600	600	1,800
3 Training Films	966	967	967	2,900
1 Slide Series	466	467	467	1,400
1 Recording Anne	700	700	700	2,100
TOTALS	$ 2,733	2,733	2,734	8,200

Appendix F

Training

Budget Justification

In Kind Services

Basic EMT Course

There will be an estimated 13 Basic EMT classes next year with approximately 20 students per class yielding 256 trained Emergency Medical Technicians.

The following are the estimated costs for each course:

Physician Participation	
3 hrs/Lesson x 10 Lessons per course	$ 750
Course Coordinator	500
Student Time	
20 students x 81 hrs x $2.40/hour	3,888
Lay Instructors (EMTs & RNs)	
19 Lessons @ 2 instructors/lesson x 3 hrs @ 5.00/hr	420
Estimated In Kind Services Each Course	$ 5,558

Total In Kind Services for Basic EMT Course	
$ 5,558 per course x 13 courses	$ 71,254

Appendix F

EMT Refresher Training

There will be an estimated 19 EMT Refresher Training Programs next year with approximately 20 students per class.

The following are estimated costs for _each_ course:

Course Coordinator	$ 200
Student Time	
20 students x 20 hours x $2.40/hour	816
Lay Instructors	
One instructor @ $5.00/hr x 20 hrs	100
Estimated In Kind Services for each Refresher Course	$ 1,116

Total In Kind Services for EMT Refresher Training

$ 1,116 per course x 19 courses	$ 21,204

Total Training In Kind Services

Basic EMT Training	$ 71,254
Refresher EMT Training	21,204
TOTAL IN KIND	$ 92,458

Appendix F

Budget Justification

Montana
EMS Communication System Costs
Summation

Non Recurring Costs

	County Costs		Regional Costs	Total
	First Year	Second Year		
Region One	$204,980	$13,330	$20,000	$238,310
Region Two	153,820	20,920	20,000	194,740
Region Three	295,920	22,330	20,000	338,250
Statewide	$654,720	$56,580	$60,000	$771,300

BUDGET JUSTIFICATION

Contractual Services (Communications)

Emergency Service and Personnel contracted to the Communications Division, Department of Administration:

$10,000 of state general funds appropriated to EMS Bureau will be contracted to the Communications Division for one full time staff member. This amount will be matched with other federal funds from DCPA.

$ 60,000 identified in the Communication appendix will be contracted to the Communications Division.

MONTANA

First Year Communication System Costs

Region One

County	Transmitters				Control Links		Hospital Consoles			Non Recurring Costs	Annual Recurring Costs
	Remote		Local								
	4 Channel	2 Channel	4 Channel	2 Channel	Radio	Tele. mi	Master	Slave	Mobile Radios		
Beaverhead	1					12	1	1	4	$15,910	$ 240
Deer Lodge	1					8	1	2		9,740	180
Flathead	2					23	2	2	1	19,220	410
Granite										--	--
Lake			1	1		15	3	2	2	18,050	290
Lincoln		1				10	1	1	3	12,610	210
Madison	1		1		1		1	2	2	27,120	180
Mineral	1					20	1		1	9,480	360
Missoula	2				2		3	3	2	43,430	240
Powell	1					5	1	1	2	12,310	140
Ravalli				1		5	1		3	9,880	140
Sanders						10	1	1	3	8,360	210
Silver Bow	1					20	2	2	4	18,870	360
										$204,980	$2,960

Regional Non Recurring Costs

Engineering Services Costs	$20,000

Montana

Second Year Communication System Costs

Region One

County	2 channel local xmitters	mobile radios	non recurring costs
Beaver Head		1	$ 1,800
Deer Lodge		1	1,800
Lake		1	1,800
Lincoln		1	1,800
Madison	1		2,530
Sanders		1	1,800
Silver Bow		1	1,800
			$13,330

Region Two

County	2 channel local xmitters	mobile radios	non recurring costs
Blain		1	$ 1,800
Cascade	2		5,060
Chouteau		1	1,800
Gallatin	1	1	4,330
Jefferson		1	1,800
Lewis & Clark		1	1,800
Teton		1	1,800
Toole	1		2,530
			$ 20,920

Region Three

County	2 channel local xmitters	mobile radios	non recurring costs
Carbon		2	$ 3,600
Custer		1	1,800
Judith Basin		2	3,600
McCone		1	1,800
Phillips	1		2,530
Roosevelt		1	1,800
Rosebud		2	3,600
Sheridan		1	1,800
Yellowstone		1	1,800
			$ 22,330

Appendix F

Montana EMS Cost Item Details

4 Channel Remote Transmitter

R.T. unit	$ 3,700
Antenna decouplers	1,200
Antenna feed and coupler	150
Antenna	180
Weatherproof housing	250
Control termination	250
	$ 5,730

4 Channel Local Transmitter

R.T. unit	$ 3,700
Antenna feed and coupler	150
Antenna	180
	$ 4,030

2 Channel Remote Transmitter

R.T. unit	$ 2,200
Antenna decouplers	1,200
Antenna feed and coupler	150
Antenna	180
Weatherproof housing	250
Control termination	250
	$ 4,230

2 Channel Local Transmitter

R.T. unit	$ 2,200
Antenna feed and coupler	150
Antenna	180
	$ 2,530

Appendix F

Cost Items - Montana

Radio Control Units

2 - R T units	@ $4,200	$8,400
2 - Antennas & cables	@ 250	500
2 - Antenna couplers	@ 150	300
2 - Weatherproof housing	@ 250	500
		$9,700

Hospital Consoles - Master

Remote control unit	$1,012
Tone encode/decode	375
Phone patch - 5 line termination	350
4 Channel scanner	193
	$1,930

Hospital Console - Slave

Remote control	$1,012
	$1,012

Mobile Radios

R T unit - 4 channel	$1,350
Priority scan - 4 channels	250
Antenna and mounts	100
EMS package	100
	$1,800

MONTANA

First Year Communication System Costs

Region Three

	Transmitters				Control Links		Hospital Consoles				
	Remote		Local								
	4 Channel	2 Channel	4 Channel	2 Channel	Radio	Tele. Mi.	Master	Slave	Mobile Radios	Non Recurring Costs	Annual Recurring Costs
Big Horn	1					6	1		2	$ 11,280	$ 150
Carbon	1						1	1	4	15,910	100
Carter			1				1	1	1	8,810	100
Custer	2				1	9	1	2	2	28,820	200
Daniels			1				1		2	9,580	100
Dawson	1						1	1	1	10,510	100
Fallon			1				1	1	1	8,810	100
Fergus	2				1	15	1	1	2	27,780	290
Garfield			1				1		1	7,780	100
Golden Valley										---	--
Judith Basin									1	1,800	--
McCone	1					10	1	1	1	10,510	210
Musselshell				1			1			4,480	100
Petroleum									2	3,600	--
Phillips	1				1		1	1		18,430	120
Powder River									3	5,400	--
Prairie									1	1,800	--
Richland			1				1	1	2	10,610	100
Roosevelt			3				3	3	3	26,440	180
Rosebud	1		1		1		1	1	2	26,080	180
Sheridan			1				1	1	1	8,810	100
Stillwater			1				1	1	2	10,610	100
Sweetgrass				1			1	1		5,520	100
Treasure										---	--
Valley			1				1	1	2	10,610	100
Wheatland				1			1	1		5,520	100
Wibaux									1	1,800	--
Yellowstone				2		20	2	2	1	12,820	360
N. Cheyenne Res.									1	1,800	--
										$295,920	$2,990

Regional Non Recurring Costs

Engineering Services	$20,000

MONTANA

First Year Communication System Costs

Region Two

County	Transmitters				Control Links		Hospital Consoles		Mobile Radios	Non Recurring Costs	Annual Recurring Costs
	Remote		Local								
	4 Channel	2 Channel	4 Channel	2 Channel	Radio	Tele. mi	Master	Slave			
Blaine									1	$ 1,800	$ --
Broadwater			1				1	1	1	8,810	100
Cascade	1				1		1	1	2	22,030	120
Chouteau	1					12	1		1	9,480	240
Gallatin	1				1		1	1	3	23,830	120
Glacier	1		1		1		1	1		22,480	180
Hill		1				5	1	1	3	12,610	140
Jefferson									2	3,600	--
Lewis & Clark	1					20	2	2	4	18,880	360
Liberty			1				1			5,980	100
Meagher									1	1,800	--
Park				1			1	1		5,520	100
Pondera		1				5	1	1		7,220	140
Teton		1				10	1		1	7,980	210
Toole									1	1,800	--
										$153,820	$ 1,810

Regional Non Recurring Costs

Engineering Services	$20,000

BUDGET JUSTIFICATION

Contractual Services (Facilities)

Development of patient transfer manual contractual to Montana Medical Education and Research Foundation.

Production Costs	$1,500
Personnel	5,000
Travel	1,500
Meeting Expense	500
Total	$8,500

Appendix F

BUDGET JUSTIFICATION

Contractual Services (Training)

The ANRC will contract to pay mileage and per diem to advanced first aid instructor trainers and instructors to provide first aid training throughout Montana.

	Train First Aid Instructors	Train Instructor Trainers	Total
Mileage	1,600	800	2,400
Per diem	1,280	720	2,000
ANRC staff	1,000	-	1,000
Total	3,880	1,438	5,400

BUDGET JUSTIFICATION

Contractual Services (Training)

The Montana Heart Association will contract to employ one full time person to train CPR instructor trainers and CPR instructors.

Salary & Benefits	$14,300
Travel	7,000
Training Equipment	3,200
Total	$24,500

Budget Justification

IV. Contractual Services (Manpower)

	Personnel	Operating Expenses	Local Match	Total
Cascade County	$ 5,436*	$ 5,090	$ 2,640	$13,166
Toole County	16,100	3,064	2,464	21,628
Granite County	3,310*	600	3,710	7,620
Total	$ 24,846	$ 8,754	$ 8,814	$42,414

*Part Time

BUDGET JUSTIFICATION

Contractual Services (Training)

Professional training to be contracted to MMERF

	20 Workshops	7 Seminars	Lesson Plans	Total
Physician faculty includes mileage and per diem	3,600	2,436		6,036
Nurse facility includes mileage and per diem	1,640	1,736		3,376
MMERF staff	6,500	3,000	800	10,300
Printings and postage	188	100		288
Total	11,928	7,270	800	20,000

Budget Justification - In-Kind Match

The activities of the Emergency Medical Services councils across the state will be utilized as a in-kind match source. This will include the projected twenty councils, six area councils and three regional EMS councils. The quarterly meetings of the Governor's Advisory Council on EMS will also be included.

It is forecast that the members of each active local EMS council will be donating approximately four hours per month. A general base value of this time is $3.50 per hour. Approximately 485 persons will be working on the various councils and their committees. (Apprximately eighteen persons serve on each council.)

Appendix F

BUDGET JUSTIFICATION

IV. CONTRACTUAL SERVICES

(Evaluation)

Research and evaluation design personnel contracted for services:

The services of a research and evaluation consultant will be contracted. Included in the $31,400 request are all key punch and input recording costs, programming, printing of trip reports, patient encounter and patient transfer forms, office rent and equipment. It will also cover all secretarial support for the consultant.

APPENDIX G

A CONCEPTUAL PLAN
FOR THE
IMPROVEMENT OF EMERGENCY MEDICAL SERVICES
COMMUNICATION SYSTEM

(Bound under separate cover)